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GREATER SPACE MEANS MORE SERVICE
LEVERAGING THE INNOVATIVE POWER OF ARCHITECTURE
AND DESIGN

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Résumé

Les structures organisationnelles s'avèrent sans aucun doute d'une grande importance dans la détermination du comportement et des performances des personnels. D'un autre côté, la nature des structures physiques influence également la manière dont les employés et les clients perçoivent l'entreprise et entrent en interaction avec elle. Dans les activités de services, telles la distribution, la banque de détail, l'hôtellerie et d'autres, les entreprises entretiennent la compétition par des innovations de produits/services, de processus de production, et de styles de management. Des approches innovantes se matérialisent aussi au niveau de la conception du bâti mis à disposition de la mission. Les prestataires de service sont en situation d'améliorer significativement l'attractivité, la praticabilité et la productivité au travers d'une conception adaptée de l'espace et des systèmes de circulation correspondants. Mais cet exercice doit également intégrer la question de la signification de cet espace, de sa taille au regard de l'image véhiculée, et de la qualification des processus par lesquels toute installation de service, même sur support virtuel, délivre un message. Dans la dernière section du texte, nous observerons le type particulier des infrastructures de service utilisées par les écoles de management, en analysant notamment en quoi le bâti a intégré dans son évolution les changements affectant l'enseignement de la gestion.

Mots clefs

Service, innovation, architecture, espace de travail, représentation symbolique de l'entreprise

Abstract

Organizational structures certainly are of great importance in order to determine employees' behaviour and performance. On the other hand, physical structures also significantly influence the way staff and customers view any company and interact with it. In service based activity, such as in retailing, banking, hospitality, and so, firms and institutions are competing thanks to innovations in products/services, delivery processes, and management styles. Innovative approaches may also materialize into the design of facilities. Service providers are in a position to significantly improve convenience, productivity, and attractiveness by designing space and defining appropriate layout carefully. This pattern also has to include identification of the meanings, characterization of size and qualification of the process by which any service facility delivers messages. In the last session of the paper, we address a particular type of service facilities, namely the buildings of institutions for higher education in management. The objective is then to analyze how facilities have evolved in order to cope with the change affecting business education.

Key words

Service, innovation, architecture, working place, corporate symbols

JEL classification: M14

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SECTION ONE

Shaping the Contours of Services:

Architecture and the Building of Corporate Symbols

Designed in 1979, the dramatic Hong Kong & Shanghai Bank tower on Victoria Island certainly symbolized the economic success of the little colony based on free market dynamics and true managerial attitudes. This Foster's achievement reigned supreme on the skyline above the whole City until the Bank of the People's Republic of China built an even taller building almost just behind it. By competing for the tallest building in China, two different groups of power, conveying two opposite political ideologies, worked very hard to give out strong messages to the local population as well as to foreign observers. Beyond the competition for the most prominent position, the towers themselves were designed in order to communicate different messages - the completely open space of the Hong Kong & Shanghai versus an enclosed one for the Bank of China; an external and visible bright iron structure for the first compared to a traditional structure hidden behind brown facing for the second; an exuberant but balanced shape on the one hand and solemnity and dissymmetry on the other. These pieces of corporate architecture give visitors and users messages about what the two successful financial service companies believe in, what and how they achieve their work. In order to communicate their view, both buildings use size, but differently due to the chronological order of their construction as well as the field space available at the time, and also formality, but at two very distinct levels.

¹ Fitzsimmons J., and Fitzsimmons M. (1994). *Service Management for Competitive Advantage*. New York: McGraw Hill.

1. Facility Design in Service Organizations

In several surveys conducted during early nineties, customers' perceptions of the two leading American retailers show significant differences. Shoppers view, and actually still do, Wal-Mart with higher esteem than K mart, while neither merchandise nor prices are differentiating themselves. Close analysis unveils differences in store decor and layout. At Wal-Mart the main aisles are wider than those at K mart. Fluorescent lighting is recessed into the ceiling, creating a softer impression than the glare from the exposed fixtures at K mart. The apparel departments are carpeted in a warm, autumnal orange, while K mart's are tiled in off-white. Together, such features signal consumers that Wal-Mart is more upscale and that it carries merchandise of a little better quality than K mart's. Wal-Mart's attention to facility design details has helped shape shopper's attitudes by striking that delicate balance needed to convince customers that its prices are low without making people feel cheap². Wal-Mart has successfully used facilities design to differentiate itself from its competitors. Using facility design as part of a differentiation strategy is now very common.

Service operations can be directly affected by the facility design³. A restaurant with inadequate ventilation for nonsmoking diners may discourage many customers. A physical fitness center that has easy wheelchair access may be able to enlarge its services to include a new clientele. Design and layout represent the supporting facility component of the service package. Together they influence how a service facility is used and, sometimes, if it is used at all. Consider dramatically successful Canadian's Shouldice Hospital, a good portion of its success in repairing internal hernias results from thoughtful design and layout. For example, the operating rooms are grouped together so that surgeons may easily consult with each other during procedures. Because early ambulating promotes faster healing, the hospital is designed to provide ample pleasant places to walk and even to climb a few steps. Meals are served only in community dining rooms rather than in patient rooms, which requires more walking, as an added benefit, allows patients to get together and compare notes⁴.

The research conducted in France and Switzerland unveils significant difference regarding the amount of effort service companies are allocated in that field. The most advanced ones view space design and management as strategic resources, while most of the other still seems to feel uncomfortable at taking advantage of the possibilities open. However, sophisticated methods and tools have been developed and could be easily mobilized. For instance, the concept of process flow analysis used by industrial engineers may be adapted in order to appraise layout of service facilities. Also, analysis of settlement layout, using the generative syntax method allows for establishing a description of spatial order. The main objective is to better understand two kinds of relations: those amongst the inhabitants of the systems: customer, service providers, etc. and those between inhabitants and "strangers". Very few service companies have tried to use this powerful tool experimented by the Barlett School of Architecture of the University of London, even if it proved its value for solving complex issues in urban planning and office building development.

2. The Meaning of Corporate Space in Services

² Schwadel, F. (1989). Little touches spur Wal-Mart's rise. *The Wall Street Journal*, September 22.

³ Mathe, H. (1997). *Le Service Global*. Paris: Maxima.

⁴ Heskett, J.L. (1983). Shouldice Hospital Limited. Harvard Business School, Publishing Division, Case N° 9-683-068.

On top of influencing productivity and convenience, buildings are conveying messages. In providing emotion, and because of the sensibility of people to their environment, space certainly means, or at least, evokes multiple feelings. When space is the result of an effort by an architect, it probably has to mean something positive. Architecture certainly carries messages about itself; the creative process adopted as well as the cultural influence recorded. It may also carry external messages as a main purpose, and in a more or less aesthetically valuable way. The question we must immediately raise after accepting this proposition is as follows - what does space mean to people? If we consider just the basic categories of observers – customers and employees who are using a building, architects, critics, and owner or developer - there is a serious probability that the meaning of a given space would appear differently to these people, taking into account each particular group. Another question might be addressed: how long does such a 'space' exist?

Hillier asserts that a theory of architecture does not say what should be done, that is to some extent a moral and political issue, but rather how to do it⁵. Following him on that matter, we would like to consider the validity of the messages that company management wants to communicate does not have to be evaluated here. The fact is that influencing customers, investors, and employees' behavior is basically what management is all about. Starting with the hypothesis that architecture encourages and discourages certain behavior, especially in service activities given the intangibility of most of service products, the relevant question is rather in which direction do corporate leaders try to take advantage of this resource when they do so.

Among others, it seems that perhaps the most significant trends lie in the followings:

The reinforcement of ideology. Therefore, design expresses the necessity of faith. For instance, the Battersea power plant, built in London in 1929, strongly communicates the faith in the new scientific and technological dynamic which inspired all the work carried out under the notion of progress during the major part of the 20th Century.

The reinforcement of individual or organization position. Therefore, design displays success and power earned. Kevin Roche, designer of the controversial General Food's headquarters in New York's Westchester County, was chosen to conceive Challenger, the new headquarters of the Bouygue Group in France near Paris. The brochure later produced to publicize the modern palace, started as follows: "Francis Bouygue, founder and chief executive of the Bouygue Group, leader of the international construction industry, sought to unite all branches of the Group's activity at Challenger, a head office on a scale unprecedented in Europe".

The reinforcement of social rules. Thus design invites people to follow conventions and given practices. Carefully designed layout at any Ikea commercial facility allows customers to gradually discover the offer of the Swedish retailer through a series of stages of exhibition before naturally finding themselves in the warehouse where the products can be taken out and then handled to their cars. Most of Club Med villages have also been designed in order to convey a sense of community and to foster a certain kind of behavior. The layout invites people to converge to the center of the facility where food is served and shows are displayed.

⁵ Hillier, B. and Hanson, J. (1984). *The Social Logic of Space*. Cambridge: Cambridge University Press.

A very strong body of ideology dramatically affected Society all over the world during at least two thirds of this period. It regards socialism, democratization of nations' power as well as egalitarian and non-discriminative practices development. Characterized by uniformity and repetition of very pure and basic elements, using raw materials for facings, the so called "International Style" rigid way of communicating through design did not necessarily match the requirement of corporate leaders who were traditionally comfortable with the rich and pontifical bourgeois architecture of the turn of the century. Meyer, Mies Van De Rohe, Melnikov and later Le Corbusier or Niemeyer amongst others imposed the messages of the International Style all over the world, facing much less resistance in Continental Europe than in the UK and the US where they had to take more in account the client's requirements and wishes. In New York both the Seagram Tower designed by Mies Van der Rohe in 1954 and the Pan Am Building by Gropius and TAC in 1958, illustrate the start of a transition period offering new opportunities for company management to communicate messages regarding corporate "ideology" or, more simply, system values. Even the basic skyscraper shape symbolizes a very strong statement to employees - reach the top! Seiler proposes the following statement: "Management can set out to create environments that augment strategies both structurally and aesthetically. Indeed, to fail to do so is to waste a valuable organizational resource"⁶. Are size and formality to be used in such an effort?

3. The Size of the Working Building

In 1922, the board of directors of the Chicago Tribune called on architects to submit plans for the "greatest building in the world", no less. Five years later, Van Allen had to invest in creative solutions to raise the height of the Chrysler Building in New York as much as he could, because the brand new projects in the city were constructing even higher skyscrapers, such as the Empire State Building and the Rockefeller Center, which seriously affected the mood of his own client.

These examples, among many other cases, show that size is used to communicate messages when it comes to buildings. It is especially true when both the CEO and the architects collaborate in order to create publicity thanks to the building. Regarding space, Abercrombie writes that sub-consciously, "we judge the object's size, using our own size as the measure. Is it smaller than we are, or bigger? If bigger, how much bigger?"⁷ Beyond this primary reflection, an important point has to be made - "greater means more" should not be understood as "greater means better". Twenty million cars obstructing the streets of London is certainly not better than only two million. Following Abercrombie, we should admit that "part of becoming a civilized adult, after all, is learning the lesson that quality is independent of quantity, and even that quantity may conflict with quality".

One could question how prominent landmarks affect balance and harmony of the environment all around. Sometimes, the repetition in a sequence of strategic locations of a relatively little, but very characteristic space, may also provide a feeling close to the emotion due to watching huge pieces of architecture. On the other hand, great space could sometimes result from the accumulation of additions to an initially modest building. For instance, this is the case in the historical and dramatic manufacturing site of the Renault Automotive Group which occupied the whole island of Seguin in Boulogne-sur-Seine for years.

⁶ Seiler, J. (1984). Architecture at Work. *Harvard Business Review*, Sept-Oct.

⁷ Abercrombie, S. (1984). *Architecture as Art*. New York: Harper & Row.

A great space could also be simply required to satisfy functional needs even if the company does not want to impose its presence in a given environment through a drastic modification of the initial harmony. In such a case, messages conveyed are probably different from those displayed by General Food or Challenger's concepts, but clients may call the same architect to perform a completely different design. Corning Glass asked Kevin Roche to design a building "consistent with the foot print of Main Street", Corning, New York. Its new centrally situated headquarters parallel the three-storey structures nearby as well as echoing their materials, so it is like an "old shoe" in its block. So, the way size of space is handled, and the level of formality desisted, partly determine the way messages are communicated.

Process to Influence

"Within any building size, what a myriad of shapes are possible!" explains Abercrombie. "The design of those shapes is a more subtle and a much more complicated way of affected our response to architecture"⁸. Formality may be requested to include space in order to communicate messages linked with ideology and position or social rules. In fact, traditionally formality was used in architecture, education, religious or military rituals, etc, to express the views and expectations of the authorities. Formality also reassures people about the reliability of the relationship established with these authorities. The complex process to communicate and influence may be divided into different types of distinct, but potentially convergent, basic processes. Among others, three possibilities are easily identifiable - the selective process, the learning process and the mobilizing process. The selective process results in the differentiation of people and the manifestation of social scale. The learning process allows people to increase their own knowledge and abilities as well as the social Organization involved. The mobilizing process tends to focus the energy of each individual on the improvement of the performance of the group.

An incursion in the manufacturing environment brings value to the discussion. In the case of the New England factory for Teradyne Connection Systems designed by Huygens & Di Mella a few years ago, the company's management wanted the "assembly crisis problem" featuring the old plant fixed in the new facility. This obviously affected the arrangement of the departments and influenced their character. Therefore, the architect proposed to consider the assembly area as a focal point of the building, surrounded by the specialist departments. "The new building made it difficult for the specialists to avoid involvement." In choosing such a way both management and design exploited the opportunity of influencing behavior thanks to space configuration. Distinction between workers on the line and specialists remain, but specialists appear now much more as "servers" of the assembly area. Being permanently connected to the line, the specialists teach the workers how to do things better, and also they learn from each other when they intersect at the focal point⁹. Design is the key factor of such an improvement, and in this case it improves the consistency of efforts and mobilization of energy around production and quality objectives. Rather than using formality as a means, the new shape emphasizes direct and casual relationships between people, due to the organizing circulation systems.

⁸ Ibid.

⁹ Seiler (1984). Op.Cit.

Serious works have been achieved over the past twenty years to design corporate buildings which emphasize both well-being and a casual relationship rather than rigidity and solemnity¹⁰. Even this is being applied to really large spaces. In multiple fields of business activities, success factors change as well as communication requirements. What might have been good yesterday to improve attractiveness and productivity may no longer apply, so creative solutions have to be elaborated. As huge pieces of a common and very particular space, the Disneyland and Disneyworld parks are created to communicate special feelings but certainly not formality. The Californian retailing chain Best has been well known for its series of extraordinary shapes, designed by SITE and Wines, which since the early seventies have emphasized humor by shaped, completely unbalanced structures and unexpected elements. In ordering the design of the BCV support center in Prilly, near Lausanne, or the new Fret Sncf headquarters rue Mouchotte in Paris, management shows it pays attention to restoration of a certain area of comfort and cozy atmosphere in administrative buildings by using green space as a focal point. The emergence of campus type corporate buildings seem to come from the same consideration together with a respect for the environment¹¹. Describing the Becton, Dickinson headquarters in New Jersey, designed by Kallman McKinnell & Wood, *Architectural Record* reported that "the client wanted a corporate office building that looked as though it could have been built any time in the last one thousand years".

Buildings communicate their messages regardless of the intentions of its owners or users¹². Building greater space means enlarging the size of these messages conveyed, which could eventually lead to increasing the influence on social behavior. Historian of Architecture, Christian Norberg-Schulz asserts that human life is largely conditioned by the quality of its "existential space", which itself affects the image of the environmental structure¹³. Major social entities and fundamental elements of the environment, companies belong to such a structure. Doing so they must fully assume the responsibility related to their spatial integration in the milieu. The responsibility of the architect might be to teach corporate management how to do it.

Finally, importance of corporate design might paradoxically be enhanced by the very fact that the necessity of related to building to deliver services is now questioned by the development of new technologies in many sectors¹⁴. Education, for example, has traditionally been provided in classroom. Schools and universities mobilize significant facilities which very often constitute major urban landmarks. While education seems to become a dramatically growing for-profit service activity, e-learning is exploding, fueling the development of organizations offering distance learning. With 175,000 salespeople and service agents at more than 7,500 dealerships, General Motors Corp. has spent a fortune bringing employees to hotel rooms and classrooms for training. Using interactive distance learning technology now being installed at every dealer, IDL will let employees view a live course beamed in by satellite and ask questions to the instructor, without leaving their dealerships. Even the US Army is

¹⁰ Holtz Kay, J. (1989). Corporate Architecture from the Outside In. *Harvard Business Review*, March-April.

¹¹ Walton, T. (1988). *Architecture and the Corporation – The Creative Intersection*. New York: MacMillan.

¹² Whyte, W. (1988). *City: Rediscovering the Center*. New York: Doubleday.

¹³ Norberg-Schulz, C. (1988). *Architecture: Meaning, and Place*. New York: Electra-Rizzoli.

¹⁴ Mathe, H., and Dagi, T.F. (1996). Managing Technology for the Globalization of Service Operations. *International Journal of Technology Management*, Vol.12, N°5/6.

jumping on the bandwagon now offering more than 1,000 different courses in information technology over the internet by SmartForce. E-learning isn't limited to tech training. Shoney's chain of restaurants has begun training waiters, cooks, and other employees using a novel satellite-delivered computer program to teaches recruits such basics as how to clock in for work or to take order¹⁵. In year 2000, International Data Corp. was predicting that e-learning would explode to a \$7.1 billion business by 2002. As a matter of fact, their forecasting have proved pessimistic. However, classroom-based courses are not going away; but institutions and training firms that relate on mediocre facilities while still focusing on traditional classroom-type services will see their market shrinking. More exceptional customer exposure to service facilities do take place, more critical it is. Actually, development of telecommunication services and internet services generate the multiplication of new retail shops. NTT DoCoMo has to implement a very dense network of hundreds of outlets across Japan to distribute mobile phones and subscriptions. US based Lycos Web portal announced in the end of 1999 a joint venture with Singapore Telecommunications to set up customized versions of Lycos in 10 Asian cities¹⁶. As a tangible result of this alliance, Lycos Asia's physical artifacts already pump out in the streets of Singapore and become a remarkable component of the urban landscape.

Sometimes, the connection with a tangible facility appears only as a suggestion since the customer interacts with the service provider on the Web only, such as in e-banking. If the internet has proved one of the very dominant vehicle for innovation in the financial industry, the reference to real building is still very present in the way online banks communicates with customers. A content analyses of the top ten U.S. banks, realized in 1999 by Jonathan E. Schroeder, from the Royal Institute of Technology in Stockholm, reveals over 50% use some form of architectural image on their websites. Furthermore, several of these financial companies rely heavily on buildings, headquarters, and the classical motif for web-based imagery¹⁷. So, whatever the service sector, firms have to consider architecture and space management as a key strategic resource. Then, innovating in the way service facilities are designed and managed represents a stimulating and permanent objective for any company willing to consolidate its competitive situation.

TABLE 1
Architectural Language on the World Wide Web
 (Source: Schroeder, J. E. (2003) Building Brands : Architectural Expression in the Electronic Age)

Name of Bank	Image of Headquarters Shown on Web Site	Architectural Images Used in Web Site
Bank of America	Yes	No
Citibank	Yes	No
Chase Manhattan Bank	No	Historical pictures of classical Chase buildings in archive section of web site.
First Union Bank	No	1998 annual report shows headquarters on cover, used through report.
Wells Fargo Bank	Yes	No

¹⁵ Symonds, W. (2000). Education. *Business Week*, January 10.

¹⁶ Khnii, I, and Baker, S. (2000). Amazing DoCoMo. *Business Week*, January 17.

¹⁷ Schroeder, J. E. (2003) Building Brands : Architectural Expression in the Electronic Age. In Scott, L.M. and Batra R. Persuasive Imagery: A Consumer Response Perspective (pp.349-383). Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.

HSBC Bank	Yes	Buildings are used extensively throughout 1999 annual report, including classical headquarters. "Building on Strength" motif uses architectural images throughout web site. Classical building show on home page; used as graphic element throughout site; clients shown ascending steps amid classical columns. No No
BankBoston	Yes	
Bank of New York	Yes	
Bank One US Bank	No No	

Note. Ten largest U.S. banks at 1999 year end. Bank information from bankinfo.com, a Thompson Financial Marketplace website, data derived from FDIC (Federal Deposit Insurance Corporation) directory.

SECTION TWO

Transforming the Architecture of Services:

Innovative Design in Hospitality, Retailing, and Banking

Virtually all service activities rely on buildings to provide its value to the market. Actually in hotels and restaurants for instance the core of the offering could be described, in simplistic way, as the provision of a roof for the night. Eating also necessary takes place in some sort of physical surroundings. More and more, restaurants and fast food outlets are being located in commercial mall, train stations, airports terminals, and the like: all large physical facilities in which only services businesses stand. Banking corporations have always put great emphasis in conveying messages through the statures of their headquarters and branches; and most of the back office jobs are located in large office buildings. Government institutions and religious organizations have showed even more interest for mobilizing architecture as the way to communicate. Middle age Cathedrals served the very purpose of telling the official story of Christianity and of gathering the all population of a given area at regular dates for reinforcing social rules.

1. Innovative Architecture as Competitive Leverage in Hospitality

In 1993, the first Hyatt Regency Hotel in France opened in Roissy, immediately close by Paris Charles de Gaulle Airport. Designed in an almost hostile physical environment by the Chicago-based German architect Helmut Jahn and the Parisian team of Jean-Marie Charpentier, the original – almost provocative - facility is primarily organized in two austere wings. The two wings are linked to each other by a glass roof of unusual proportion: 40 meters in width and the equivalent of a seven floor construction in high. This astonishing piece of glass architecture covers a large lobby-restaurant-bar decorated with wood and shiny color panels. In front of the glass facade, but still belonging the courtyard between the two wings, a park unveils a series of water ponds carefully positioned between several lines of trees, offering the hotel its own manicured landscape and sight. None of these features can possibly be anticipated from the nearby motorway¹⁸. Since its launching the Hyatt Regency at Roissy is recognized as a key landmark in the area, and successfully houses multiple activities,

¹⁸ Champenois, M. (1993) Hôtels long-courriers, *Le Monde*, February 13.

conventions, and events. This case seemed unusual in hospitality for early nineties, but one had to remember that the Pritzker family from Chicago, founder of Hyatt has endorsed an positive approach toward innovative architecture as a key strategic resource from the early age of the hospitality group.

During the late sixties in North America, while most players in the industry concentrated on the reproduction almost everywhere of cost effective, low ceiling, standardized practical structures, the Hyatt group invited John Portman to design its first atrium-centered hotel. Portman, who was credited for having beautifully renovated Atlanta downtown, was fascinated by Jules Vernes or Piranese, and a great admirer of Mies Van des Rohe and Saarinen. He has been working on a new architectural concept for hospitality building for almost a decade. His original piece was allowing all the guest rooms to surround a dramatic atrium tower lobby on 21 floors, with balconies and plants everywhere in the lobby. For the first time the elevators were engineered to be build with three faces of glass. No corridor was included in the drawings. For the heavy players in the hospitality industry of that time, such an architecture was considered far too expensive and generating too much unusable space. A small company launched in 1957 specializing in airport lodging services decided to embrace the innovative concept in 1967 and then, Portman and Hyatt working together literally created an entirely new style in hospitality architecture. The challenge to hotel architects was no longer to eliminate extra space, rather to create grand, wide-open public spaces. By 1969, there were 13 Hyatt hotels in the United States, and the first Hyatt International unit was launched in Hong Kong that year. The hotel in Chicago that opened in 1971 received excellent appreciations, followed by San-Francisco in 1973, then Atlanta, Detroit and so on. Later on, Don and Jay Pritzker have founded a special recognition award for innovative architecture: the Pritzker prize, and many observers in the building trade would consider this award as equivalent in architecture as the Nobel prize in science or literature.

In 2004, the company operated 208 luxury hotels and resorts around the world, including 122 units in the US, Canada and the Caribbean managed through the Hyatt Hotels Corporation umbrella, and a series of 86 hotels and resorts in 39 countries through Hyatt International Corporation. The hospitality group enjoys a strong reputation not only for the physical distinctiveness of its buildings, incorporating local art and design, but also for the amenities and services provided. On another dimension, Hyatt who employed 80,000 staff members worldwide is credited for effort in diversity; the US arm leadership on the subject has led Fortune magazine to name the company as one of “America’s 50 Best Companies for Asians, Blacks, and Hispanics”¹⁹. Finally regarding the overall quality of its services, Hyatt won first place in 2004 for the sixth consecutive year in the 15th annual Business Travel News “Top US Hotel Chain Survey”²⁰.

On the one hand, hospitality has been generally perceived as a traditional – if not conservative - sector of the economy, and that in terms of management style, attitude to customer or guest, as well as...facilities architecture and interior design. Multinational groups, such as Accor or Marriott have reproduced hundreds of similar Novotels or Courtyards design. Until recently, staying at the Novotel in Sydney was producing an almost similar experience as the one at the Novotel Cergy-Pontoise, twenty five kilometers North West of Paris except for the outside view from guest rooms; and the Courtyard at Roissy Charles de Gaulle Airport roughly relies on the same layout and on the same furniture set as any of its sister-units in America. Similar classical, if not Victorian, sofas, beds, chairs and table could be found in most places and

¹⁹ Special Report on Diversity in the Corporation. (2000). *Fortune Magazine*, July 10.

²⁰ Company’s Web site in 2004 : WWW.hyatt.com

menus will usually include such items like: continental breakfast, pizzas and pastas on room services, cheap-brand scotch and Coca Cola – or Pepsi – in the mini-bar always accessible in the bedroom with a special key for whatever unmentioned reason. Given the combination of good analyses of the average customer expectations and cost effective management requiring scale economy, all these practices make sense, even if participating to this tendency of world “uniformization” that many fear while considering the growing globalization of the economy.

However, on the other hand, creativity seems to express itself in most spectacular and lively ways in theme parks, trendy restaurants, and airports’ grand hotels, as well illustrated by the Hyatt case. Hundred examples could be added, often connected to individual initiatives by privately owned hotels. For instance, Olivier de Vleeschouwer, an authors and books editor, has established a list of recently built or restructured hotels for which he found the design amazing²¹. The collection include, among other creative expressions: the Sorat Art’otel in Berlin and the Pflaums Posthotel in Pegnitz, both in Germany, Il Palazzo in Fukuoka and the Poluinya in Hokkaido, in Japan, the Saint-James in Bouliac and the La Pérouse, in France, the Mondrian in Los Angeles, U.S., and the Pousada de Nossa Senhora da Asuncao, Arraiolos, Portugal²². At the 2003 Equip’Hotel edition, the trade fair in Switzerland revealing news trends in hospitality, visitors have discovered a bar of large dimension designed by architect Marion Bottier. When asked to describe her intentions, she said: “Genuinely modern, this bar aims to reflect the new trends in consumer spending behavior. Voluntarily gigantic, built on a monumental scale, we designed it in elevation (9 meters high). That brings it the optimal visibility. We installed it in two floors with a bar space on the ground floor and DJ station on the second (...) The décor enhances the key ideas behind the concept and translates an enchanter universe. Sharp colors are following crazy curbs to confound the visitor who will be brought to walk across sizeable objects. All of this be experienced in a multicolor light contributing to enhance the beauty of large fruit baskets and coffee bean bags. It is clear that customers are not going out today only to open up the bottle they could find in their own fridge; we must then astonish them, blow their mind and invite them to discover new senses”²³. In Switzerland again, a country usually noted for its traditional culture and quiet conservatism, the hotel Palafitte might earn its rights for a durable life due to its originality. Initially built as an ephemeral artefact in Neuchâtel for accommodating the VIP visitors of the National Swiss fair “Expo.02”, the unique luxury hotel Palafitte comprises of 40 individual lodges built in wood, including 24 of them standing on posts above the water directly on the lake and facing the Alps mountains. In 2002, the Sandoz foundation poured Swiss Francs 20 million in the creation of this creative five star hotel that was expected to have disappeared by March 2004²⁴. Due to its success even after the ending of the Expo.02 fair, and to the quality of the aesthetic impression produced on the neighboring area, the local authority has allowed the attractive establishment to survive the critical date, at least for some time. And it actually might serve as a laboratory for innovative, water based, hospitality facilities.

In November 2003, were announced the Business Week / Architectural Record 2003 Awards, a program sponsored by the American Institute of Architects. Only 10 out of 168 entries were selected among which stands the complete restructuring of a precious Frank Lloyd Wright

²¹ de Vleeschouwer, O. (1998). Hôtels étonnants. Paris: Telleri.

²² Sorat Art’otel designed by Johanne and Gernot Nalbach, Il Palazzo by Aldo Rossi and Shigeru Ushida, Pflaums Posthotel by Dirk Obliers, Poluinya by Toy Ito, Saint-James by Jean Nouvel, Mondrian by Philippe Starck, La Pérouse by Barto & Barto, Pousada de Nossa Senhora da Asuncao by José Paulo dos Santos.

²³ With Studios Decoration, a special report on 2003 Equip’Hotel, in *Ehlite* (Ecole Hôtelière de Lausanne), Issue N°3, July 2003

²⁴ Jubin, S. (2003). Neuchâtel se bat pour que le cinq-étoiles Palafitte échappe à l'éphémère d'Expo.02. *Le Temps*, January 17.

building in Batlesville, Okla., saved from the wrecker's ball, just like the Palafitte in Neuchâtel. Initially built in the 1950's, the 19-story-tower – Wright's only skyscraper - included retail space, offices, and apartments. By the end of the nineties, the local owner donated the decrepit and mothballed facility to the non-for-profit Price Tower arts center. A 21-room hotel, which included a restaurant, conference center, and bar was designed to work within the confines of the outmoded building by Wendy Evans Joseph, an American architect from New York. The new and innovative enterprise has proved to provide the financial stability to make the arts center viable and keep the historic building alive. The architect used wood inlays, built-in furniture, and other materials and furnishings in keeping with the original Frank Lloyds Wright's famous style; and she managed to leave room for a future gallery and space for education programs²⁵. Actually, none of the three previous experiences has been directly initiated by a hospitality group. In this traditional industry worldwide, professional associations and private foundations seem to play an important role when it comes to testing new concepts and launching field experiments.

Companies permanently use architecture, and sometime architectural innovation, when advertising for the services they provide. Among the noticeable recent campaigns, one might recall the impressive 2003 InterContinental effort. InterContinental hotels and resorts chain has not been very visible in magazine advertisements for the last decennia. After a somehow trouble period and many months invested into the redesign of its services and facilities, the group launched a strong and stylish advertising based on a concise message and a bold picture of the InterContinental London. Usually introduced on a full double page format and framed in black ink, the relatively dark picture features a very high ceiling lounge, structured by pillars, open through a glass bay on a dramatic early morning view of park and city as seen from a higher floor, i.e. a higher level. In the middle of the right page and in the back of the room but close to the large window stands by himself a discrete executive holding a cup of coffee. On the wall behind him, almost in the darkness, one may be able to see five drawings of classical architecture, all of them representing gates. Printed in large white letters, the main message says: » It's easier to think outside the box when you're not staying in one", and a second one, almost invisible at first sight, adds the following: » You can rarely mix business with pleasure. But that doesn't mean that business travel can't be pleasurable. We know what it takes"²⁶. Only a Web site address and a phone number in the bottom left page complete this creative add. Actually this campaign has proved so successful that it was reused by WPG, the World Press Group – which member publications include BusinessWeek, The Economist, Fortune, Herald Tribune, Newsweek, and Time - to advertise on their own capability to cost-efficiently cover up-scale business people across Europe. A copy of the initial ads covers about half of the page delivered by WPG, under which a new message says: "InterContinental had designs on CEOs. WPG delivered them. Here's the proof". The text beneath the title summarizes the communication strategy of the hospitality group and quotes some unnamed top executive: "The response from the international press advertising has been phenomenal. We deliberately moved away from stereotypical hotel advertising and our fresh-thinking, updated strategy has paid off handsomely".

²⁵ Doing the « Wright » Thing. (2003). In The Business Week / Architectural Record Awards Special Report, *Business Week*, November 3.

²⁶ See, for example, InterContinental advertizing in : *The Economist* (2003), February 8th (p.10).

FIG. 1

An interesting example of architectural integration: MacDonald's outlet in historical Bergen, Norway (photo by author).



Examples of successful design of trendy restaurants in large cities all over the world, starting with London, New York and places like Shanghai or Singapore today, as well as a new generation of independent and creative hotels also show how much value a sound and innovative architectural strategy can provide to open-minded entrepreneurs. Is the lodging industry and restaurant business sufficiently mobilizing the resources for innovation provided by smart architecture? My impression is that the like 1970's Hyatt determination to break with the design practice of the all sector is still rare. Hotel and resorts corporations, restaurant chains and entertainment parks, cruising companies and casinos, are obviously investing large sums of money into the building and the maintaining of their facilities. Financing any new piece of real estate is carefully thought about by strategic planners who often manage to put together pools of investors willing to share risks and rewards. However, few of these firms have top executive focusing on leveraging the innovative power of space design; and, as a result, many projects, even amongst the most recent, lack the aesthetic quality of truly valuable architecture. Despite the fact that most of these companies, including almost all Fast Food chains, run their own architectural department, the innovative intensity associated with the usual lodging and restaurant facilities doesn't rank very high. Restaurant units being frequently located in mall, looking at commercial centers and facilities associated with successful retailing enterprises constitutes the natural prolongation of this first round of observations.

2. Creative Space Design and Commercial Success in Retailing

Prime mail-order catalog group in the United States during the seventies, Best Products Co. associated itself with the creative architectural practice SITE in order to build a series of

show-rooms in different states. Devoted to sale for 40 percent of its size and to warehousing for the other 60 percent, each unit looks like a basic box without any window, neither any attractive angle. Et c'est précisément sur la base d'une forme aussi banale qu'a pu s'exercer toute l'imagination et tout l'humour de l'équipe d'architectes de SITE et en particulier de Alison Sky, Emilio Sousa, Michelle Stone, et James Wines. Chaque projet de magasin a fait l'objet d'un traitement original, et aucun d'entre eux n'est passé inaperçu. Qualifié par ces auteurs de « désarchitecture », le style adopté incarne le transitoire et l'éphémère : éboulis partiels, fêlures d'angle, décollage des parois de façade²⁷. La première réalisation mémorable en 1971 à Richmond, Virginie, se nomme « projet d'épluchage » (peeling project) et utilise comme base départ un magasin existant. La façade en briques semble littéralement se décoller aux deux extrémités dévoilant ainsi un fond de ciment blanc. En 1974, le projet dit « façade indéterminée » (Indeterminate Facade) d'Alameda-Genoa à Houston consiste en un bâtiment nouveau en brique de 6500 m² sur deux étages. Achèvement en 1975, la structure offre une façade et des cotés étendus au-delà des limites techniques nécessaires et dont l'aspect inachevé donne l'effet d'un édifice entre construction et démolition. Un faux écroulement de briques s'étalant au dessus du passage pour piétons décore l'avant du bâtiment. La galerie marchande d'Arden Fair, à Sacramento en Californie (Notch Project), terminée en 1977²⁸, puis le « magasin à bascule » (Tilt Showroom) d'Eudowood à Towson, Maryland, ouvert en 1978, offrent de nouveaux et spectaculaires exemples de remise en cause déconcertante des formes traditionnelles du bâtiment commercial²⁹. Enfin, la galerie d'eau de Hialeah à Miami en Floride, ainsi que le « bâtiment de la forêt » (Forest Building) à Richmond, Virginie, tous deux développés entre 1978 et 1980 intègre la végétation dans la structure des édifices. Dans le magasin de Floride, un mur de verre contenant des éléments de la flore locale entoure la façade et l'eau qui coule en permanence depuis le toit constitue alors un réseau fluide. L'objet construit, qui change d'allure en fonction du temps, devient un morceau du paysage. Bien d'autres réalisations pourraient encore être introduites ici, mais là n'est pas l'objet. En faisant le choix d'une architecture commerciale véritablement originale, voire provocante aux yeux de certains, le groupe Best rompait résolument avec la résolution ennuyeuse que faisaient les distributeurs de la question du bâti dans les zones commerciales. Mariant émotion esthétique positive et humour optimiste les magasins Best offraient aux consommateurs un cadre alternatif engageant et l'augure d'un traitement souriant et non conventionnel de leur demande. Avantages concurrentiels certains au cours des années soixante dix et quatre vingt, ces choix architecturaux innovants n'ont toutefois pas permis à l'entreprise de survivre aux difficultés économiques survenus au début des années quatre vingt dix, conduisant à la cessation d'activité en 1995.

²⁷ Restani, P. and Zevi, B. (1981). SITE: l'architecture comme Art. London and Paris: Academy Editions.

²⁸ Notch Project by SITE, Inc. (1978). *Opus International*, N°65, Winter.

²⁹ SITE (1978). SITE : Projets et theories. Bari: Dedalo Libri.



FIG. 2

Interminate Facade by SITE: The Best Store, Almeda-Genoa, Houston

(source: Restani, Zeni, 1981)

Retail has proved a major part of the life of million of inhabitants of North America, Europe, and increasingly of Asia and Latin America. A dominant service activity in modern societies, retail takes multiple building forms: individual or chains stores, downtown department stores, or large commercial centres. More and more, complex conglomerations extend beyond retail and combine entertainment in different forms. In modern time, the quality of the spatial representation of the retail physical support has obviously not been considered an important matter, as demonstrated by so many situations where the gas station along with strip malls, stores lined up along the highway; stand unrelated in isolation on suburban America and Europe. On both sides of the Atlantic, multiple reports have condemned the negative effect on the landscapes of town entrance of the out-of-control proliferation of retailing facilities, reports with very little apparent near-term impact³⁰. The economic growth since the sixties combined with the spectacular development of the supermarket formula, as well as the relatively loose regulation regarding the building of commercial spaces, except in Germany and to a certain extend Switzerland and Austria, have proved stronger forces than any aesthetic considerations.

In a contribution on the architecture for the retail trade, Eberhard H. Zeidler identify three major causes that have wrought the current state of retail and which significantly influence its future course: 1. the influence of transportation, particularly the automobile, 2. the discovery of emotion as a factor in the design of retail facilities, and 3. the necessary integration of retail

³⁰ Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Random House.

into a fragile environment, which is now the concern of so many³¹. For Zeidler, the nineteenth century “passage” fed on urban density and strengthened the urban texture, even after the introduction of trains and streetcars. Department stores have been emerging in Europe and the U.S. as early as in 1828, when Karl Friedrich Schinkel started to design for Berlin an astonishingly modern and striking series of buildings for the retail trade in Germany³². Most of them were never realized but the projects paved the way for an imminent transformation of commercial practice in the city. Later in Paris, Aristide Boucicaut founded the soon to be well known department store: “Au Bon Marché”, which main facilities were built between 1869 and 1872 by Alexander Laplanche and then extended by Louis Charles Boileau and Gustave Eiffel. In his famous description of the department store’s opening, the great novelist Emile Zola comments: “Everywhere, space had been saved, and air and light had free access, the public moved, unimpeded, beneath the daring span of the roof construction, with its widely spaced supports. This, then, was the cathedral of modern commerce”³³. Completed in 1893, the astonishing GUM department store in Moscow also displays one of the few surviving impressive glass-roofed arcade of the nineteen century. Architecture innovation definitely played a crucial role in this deep revolution which profoundly reshaped both the cities’ downtowns and the retail trade and service sector.

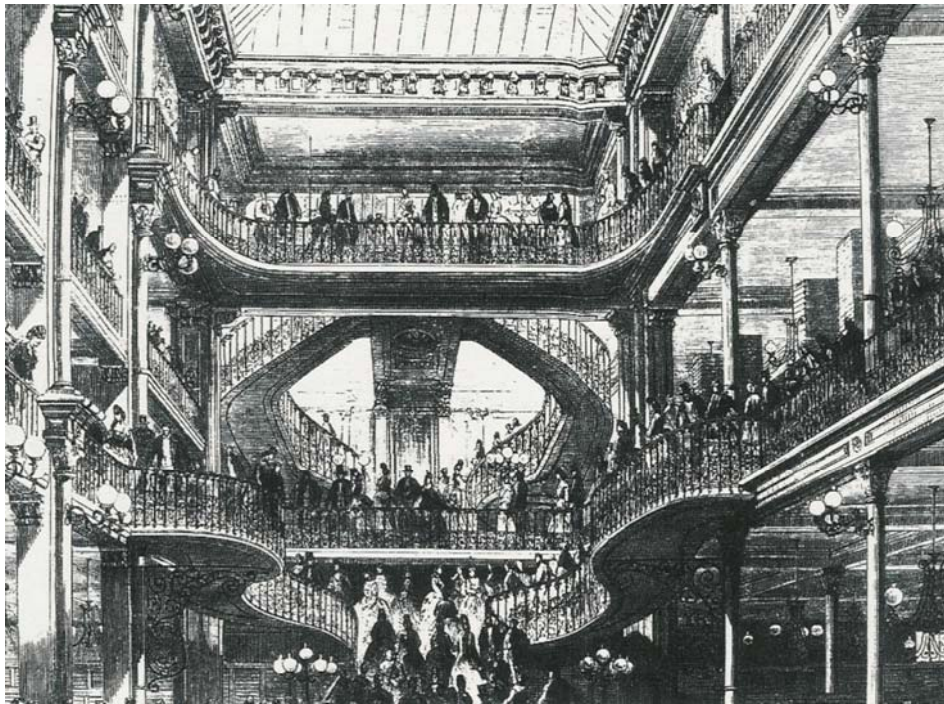


FIG. 3
Au Bon Marché, Paris.
Agrandissement par Charles Boileau et Gustave Eiffel en 1880.

Over the twentieth century, the automobile has proved to be the most crucial factor which changed shopping patterns. J.B. Jackson, a specialist of landscape history, writes: “The automobile-especially the commercial automobile the truck, the pickup, the van and minivan

³¹ Foweword by E. H. Zeidler (1996). In Hocquel, W., Gartrell, J.D.: Architecture for the retail trade. Basel: Birkhäuser.

³² Sedlmayr, H. der Mitte, V.(1948). Die bildende Kunst des 19. und 20. Jahrhunderts als Symptom und Symbol der Zeit. Erstaugabe Salzburg.

³³ Zola, E. (1883). Au Bonheur des Dames, Paris.

and jeep-has been most effective in introducing a different spatial order. For what those vehicles contain (and distribute) is not only new attitudes towards work, new uses of time and space, new and more direct contacts with customers and consumers, but new techniques of problem solving”³⁴. In North America, the relative freedom to build has dramatically altered the urban texture and the extents of the resulting environmental damage are only now being sensed. The shopping centre created by Victor Gruen in the Detroit East Mall was probably the first experiment to transplant the city into what was previously a virtual no-man’s land only reachable by car, opening the way to the multiplication of commercial malls. Previously, in 1916, Howard Van Doren Shaw designed Market Square, a combination of small stores and a Marshall Field department store for the Chicago garden suburb of Lake Forest³⁵. The “historical” American city deteriorated even more due to this powerful trend, and the phenomenon was not immediately perceived as potentially negative since most citizens might have disliked their cities anyway due to the very specific history of urban development in the New World³⁶. Development of shopping centers in the United States slowed down due to the depression and World War II. In 1956, Victor Gruen, an admirer of the glass-roofed, nineteenth-century galleries of Milan and Naples, created in Edina, near Minneapolis, the first indoors, air-conditioned public walking areas for the Southdale shopping center³⁷. Then, from 1960 to 1970, more than 8,000 new centers, mostly indoor shopping malls, opened in the United States, and by 1995 more than 40,000 operating shopping centers were registered, including about 2,000 so-called regional malls³⁸. Designed in 1970, the Eaton Centre in Toronto appears to be the first expression of an attempt aiming at integrating a “regional” shopping mall flawlessly into the fabric of the city³⁹. The Eaton Centre building, with about 300,000 square meters of retail space, also took into account emotional elements in its architecture, displaying an innovative gallery able to create a sense of place. It ended up as one of the most successful commercial centres in North America. Apart with a few number of other exceptional achievements, most of the retail developments that emerged during the period from the sixties toward the end of the eighties are not credited for having improved the aesthetic quality of the urban environment, neither to have fostered architecture innovation. “Compared with the high-flown, extravagant interiors of the Victorian shopping bazaars and department stores which celebrated shopping and consumerism on a scale unrivalled before and since - writes Witold Rybczynski - the architecture of most contemporary shopping malls is downright modest”⁴⁰.

Regularly, new studies are initiated by multiple bodies – governments, city authorities, professional associations, universities, and else – aiming at improving the overall architecture quality and general attractiveness of retailing facilities and commercial centres. As a example among many, an interesting experimentation took place in France in the early nineties. Ten leading retailing brands, namely: Auchan, Casino, Castorama, Conforama, Continent, Darty, Docks de France, Euromarché, Habitat, and Intermarché, have gathered together to launch an architectural competition for the design of innovative new medium and large sized retail

³⁴ Jackson, J.B. (1994). *A Sense of Place, a Sense of Time*. New Haven: Yale University Press.

³⁵ Rybczynski, W (1996). *City Life*. New York: Touchstone, Simon & Schuster.

³⁶ Rybczynski, W (1996). *Ibid*.

³⁷ Gruen, V. (1964). *The Heart of Our Cities: The Urban Crisis, Diagnosis and Cure*. New York: Simon & Schuster.

³⁸ International Council of Shopping Centers statistic.

³⁹ Zeidler (1996), *Op.Cit*.

⁴⁰ Rybczynski, W. (1996). *Op.Cit*.

spaces, between 1 600 m² and 22 500 m². Once again, the initiative came from government, with in this case the direct involvement of French Ministries of Commerce and of Housing and Transportation⁴¹. Winner of the first award, Hélène Bouisson, an architectural student of 21 years old, creates a creative space with the parking lot surrounding by building in U shape, with alleys all converging to a user-friendly plaza facing a very large screen. The screen is dedicated to advertising and product information at business hours, and then projects movies at night, the parking lot transforming itself into a large drive-in theatre. Another noted project for an Habitat store has focused on a sophisticated layout, designing a customer's journey through different spaces carefully articulated with another: lobby, cafeteria, show-room, self service area, and open storage. The Habitat group head of development expressed his enthusiasm, soon followed by numerous other companies' executives involved by the event. However, very few of them followed on. As a matter of fact none of the dozen innovative projects elaborated thanks to this event has been taken seriously enough to lead to real case building. This case certainly doesn't stand as an exception; most of the similar initiatives taken in Europe, as well as in North America seem to have almost no influence on the architectural policies of the large retailing chains. Obviously, if managing real estate is perceived as an important function within each of these companies, on the opposite, mobilizing architecture as a key source of commercial success seems not to have been, until recently, widely recognized. However, as retailing becoming an even more competitive industry, many chains of stores have recently showed a vested interest into more sophisticated physical settings. Even if very few retailers take an "aesthetic risk" comparable to the one undertaken by The Best Products Co. during the seventies in the U.S., these efforts are resulting into significant improvement in the commercial landscape.

For Giorgio Armani, the founder of the famous clothing company, “a boutique is a superbly effective means of communicating through which you establish your trademark, your image, with the public (...) you reveal a moment of truth. That “truth” lies in how closely you’ve integrated the product’s quality with its presentation”⁴². Reinforcing the point, Grant Camden Kirkpatrick, an architect who, in the mid nineties, published in a noted book a remarkable collection of reports on innovative shop design⁴³, adds: “the relationship between a store’s image and its product is the major challenge to its success”. Of course, one has to realize that working on a new concept of store usually involves interior design much more than traditional architecture. Both fields certainly belong to the broader subject of corporate space design and refer to industrial design as well. But, working on a store design produces a more ephemeral effect on the visual environment than building a new structure. Because of this ephemeral characteristic and of the usually limited level of financial investment required, the perceived level of risk seems lower, allowing for potentially more creativity. On the other hand, the impact of the generated new image and atmosphere on customer willingness to do business with the company appears to be taken more seriously than ever before. And many chain owners defend that it’s easier to touch customer through appropriate shop interior design than through grand architecture.

Most of the time, the store will use an already standing building which history might have nothing to do with retailing. And sometimes, the most valuable architectural impact of the effort to redeploy a new retail space precisely results from the conversion and revitalization of classic or industrial pre-existing structures. Anthropologie, a specialty, apparel, and furniture

⁴¹ Marguerite, C. (1990). *Dix enseignes pour un concours*. LSA, N°1228, October 25.

⁴² Armani G. (1994). Foreword. In Kirkpatrick G.C. *Shops and Boutiques*. New York: PBC International, Inc.

⁴³ Kirpatrick (1994). Op. Cit.

6,500 square foot retail space in Wayne Pennsylvania, as well as the Urban Outfitters apparel and accessories outlet in Santa Monica, California, display examples of successful conversions of historic building: a 1930s warehouse in Wayne, and a 1927s industrial structure in Santa Monica. Both places designed by Sue Otto and Ron Pompei, uses a distressed and “broken” palette of materials such as natural, aged wood, and metals with oxidized patinas, simulating the familiar haven of the targeted consumer. Actually, a full commercial centre designed on similar – but more extremely expressed - principles opened its doors in 1994 in Orange County, California. The place, officially called the Lab, and unofficially, the anti-mall, was displaying plenty of attitude, decay, and patchouli. Its builder, Shaheen Sadeghi, a former surf-wear executive, was targeted “the lost generation of mall rats. At age 18 to 30, they are too cool for the food courts and too rumpled to appreciate Chanel or Nordstrom”⁴⁴. By 2004 in Europe, this given style has not yet been followed by a significant number of retailers, usually more comfortable with a much sober expression of modernity.

For Kirkpatrick, developers of places like Wayne’s Anthropologie and Santa Monica’s Urban Outfitters concentrate on “Store Imagery”, where the projects tend to directly adapt the image of the target customer and merchandise to the architectural space. Very different stores would also belong to this category, such as the alluring and quiet Bergdorf Goodman Men’s apparel 40,000 square feet luxury store in New York⁴⁵, which became the trademark for their product and name, or the Ralph Lauren unique town house on Madison Avenue in the same city. Also, the Greco-Roman styled Ceasar’s World⁴⁶, a major gift and souvenir shop in Las Vegas, Nevada, directly emulates the products in order to elicit memories and emotions. A second category of innovative design for store tends to respond to the challenge of promoting sales environment with sensitivity to economic parameters. For Kirkpatrick, the challenge takes many forms⁴⁷, including retail entrepreneurs who are exploring new ventures with limited resources, like the pH Neutro perfume shop in Florence, Italy for instance⁴⁸, stores that seek the creative expression of inexpensive materials to suggest the value of their products, such as the Levi’s Only casual apparel in Ontario, Canada⁴⁹, and retail owners who “desire the illusion of champagne space within a beer budget “, the St. Mark’s Bookshop in New York offering an attractive case⁵⁰.

⁴⁴ Drucker, S. (1994). The Anti-Mall. *The New York Times Magazine*, October 9.

⁴⁵ Bergdorf Goodman Company, architect/designer of the NewYork Men’s store: J.T.Nakaoka Associates Architects, Los Angeles, California.

⁴⁶ Caesar’s World Company, architect/designer for the Las Vegas Gift shop: TSL :Merchant Design Group, Los Angeles, California.

⁴⁷ Kirkpatrick (1994). Op. Cit.

⁴⁸ pH Neutro perfumr Company, architect/designer for the Florence, Italy, shop: Jensen & Macy Architects, San Francisco, California.

⁴⁹ Keith Kovar owner, Levi Strauss & Co. franchise in Canada; architect/designer: The International Design Group, New York, New York.

⁵⁰ St. Mark’s Bookshop, Bob Contant, and Terry McCoy associates; architect/designer: Zivkovic associates Architects P.C., New York, New York.



FIG. 4
Yebisu Garden Place, Ebisu, Tokyo, Japan
(Source : Storefront 1 – Edited by Graphic-sha Publishing Co, Tokyo, 1995)

Finally, one may recognize a third category of projects which probably corresponds to the most creative design efforts, namely the “Unconventional Venues”. A conversion of a beaux-arts style bank building, the 12,000 square feet Emporio Armani apparel store in San Francisco includes a central bar as the focal point of the ground floor, while the mezzanine level houses the dining area of a dedicated restaurant⁵¹. In this case, the creative value comes from the fact that the retailing space integrates special features, such as bar, coffee point, or restaurant, as focal points for their sales areas to creatively display new merchandise. The Sara Sturgeon apparel outlet in New York was thought about as an interpretation of some sort of medieval fortress allowing the architect, Raffi Balouzian, to compose a thematic approach of the retail store and showroom area. More and more, retailers explore creative means to combine showrooms, spaces for the display of fashion merchandise, with shops. For promoting advanced products, such as hifi systems or high end furniture, some retailers develop areas where merchandise is used to relay a sense of comfort of home with style, as seen at many of the retail franchises of the Danish Bang&Olufsen audio-video manufacturer.

⁵¹ Georgio Armani Corporation ; architect/designer of the San Francisco store : Thane Roberts, Santa Monica, California.

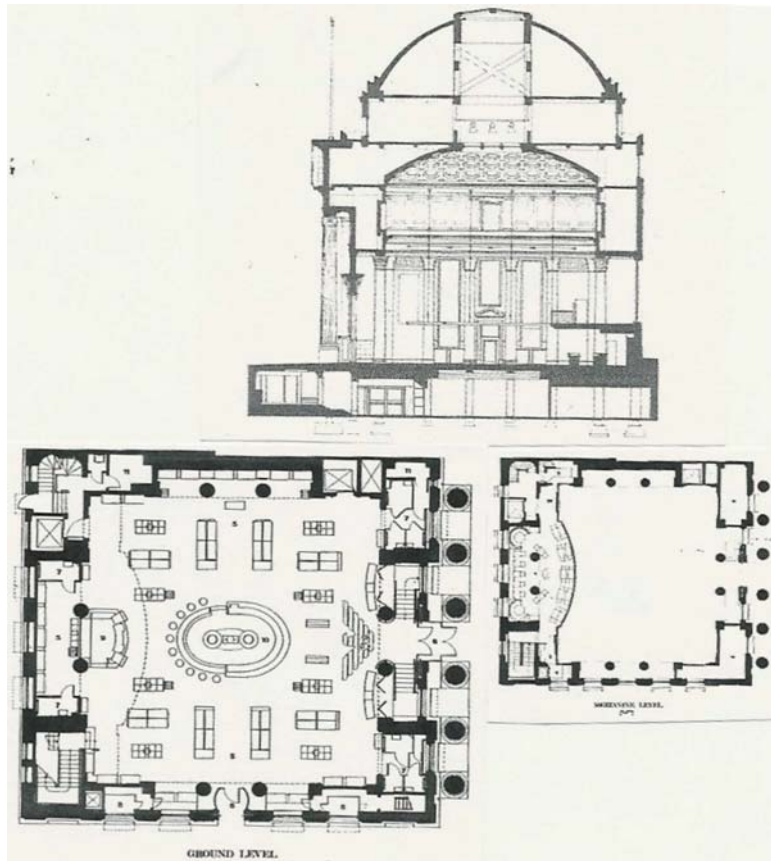


FIG. 5
Emporio Armani, San Francisco,
building conversion by Thane Roberts Architects

New in the debate, a handful of manufacturers of electronics products are following this trend toward the building of sophisticated retail space. In May 2001, Apple Computer Inc. announced its intention to launch a series of own shops. Following Apple, Sony Electronics Inc., and the PDA maker palmOne especially invest in creatively designed new shops aiming at displaying their most advanced products and above all at communicating on the philosophy underlying their strategies. However, most of the manufacturers, ranging from Gateway Inc. to Dell Inc., who have opened stores and kiosks quickly decided to shut them down. Justifying the opening of their 11 stores in malls, palmOne, which hands out rebate slips to people who visited its stores, found that 31% later brought palm products at other places or online⁵². On the other hand, in 2004, Apple's 75 outlets prove surprisingly profitable⁵³. But, Apple has a suite of original products which tend to command higher prices, compensating for high fixed costs associated with high-end retail shops. In 2003, Apple Computer Inc. established its flagship store in an entirely renovated New York's SoHo landmark 1920s building with a neo-classic façade. The wide open store, with a large skylight and a central staircase that appears to float up to a second story, is spare, with a small number of Apple computers and iPods displayed as objects of desire⁵⁴. Dominant colors include white and light

⁵² Edwards, C. (2004). Boutiques for Flogging the Brand. *BusinessWeek*, May 24.

⁵³ Edwards, C. Ibid.

⁵⁴ Where Apples Really Shine (2003). In The Business Week / Architectural Record Awards Special Report, *Business Week*, Op.Cit.

grey, and glass and aluminum constitute the most visible materials mobilized for this reconstruction signed by Californian architect Bohlin Cywinski Jackson. As a matter of fact, architects, graphic designers, product developers, and merchandising people have been grouped together under the active leadership of CEO Steve Jobs to create a space that projects the philosophy of the company. Customers are supposed to interact with the products by themselves and to enjoy a “party” atmosphere. Room for children to play with software is provisioned on the upper floor, adjacent to a 40-seat conference room. As a widely advertised about, the store is supposed to represent one of the keys company’s illustrations of its CEO’s vision. Just as the Mac of the mid-eighties has revolutionized the computer industry, Apple worked, twenty years later with its hot selling iPod digital music players, at changing the world of music. The new product iPod has proved to be able to store 10,000 songs in a device smaller than a deck of cards, and it links with Apple’s online music store: iTunes. From April 2003 to February 2004, 30 million songs have been legally downloaded from Apple’s store and some experts predict the end of the compact disk as a consequence of this spectacular success⁵⁵. “(Jobs) is a real visionary, the kind who can change industries”, says Jimmy Lovine, chairman of Interscope Geffen A&M Records, Universal Music Group⁵⁶.

Other industries rediscover the value of investing in the design of innovative “shopping” areas. That proves to be especially visible in the automotive industry, in which the initiative was left to dealership almost from the origin of the activity. Daimler-Benz, which maintains in Germany its ownership over numerous points of sales naturally showed the way in defining more than usual sophisticated and standardized outlets. An original project, called the A-Class Box⁵⁷, was initiated for the commercialization of the lower range vehicle, quickly followed by a more ambitious and creative project for the Smart Car brand. On the famous Champs Elysées Avenue in Paris, the Renault building, formerly known as the Renault drugstore, has long established itself as a prime spot with its trendy bar and modern-style restaurant, while most of its competitors’ outlets in 2004, with the exception of Toyota, still display traditionally designed dedicated show rooms. BMW also appear to spend energy in defining innovative concepts for the design of its new showrooms and aims at closely assisting its dealerships in the design of the own commercial areas. Petrol groups have always paid attention in the design of their networks of gas station, although not necessary going for truly innovative solutions⁵⁸. Some of them however, like British Petroleum for instance, tried to improve the aesthetic quality of their points of sales as showed in interesting experiments in France and Switzerland in the early 21st century. In itself, the study of the mobilization of the space design and architectural resources by the key players of the large automotive industry would deserve an entire series of thick books. So, we will not elaborate on this topic here. Other commercial activities, even the one based on pure intangible value creation, like the financial services, which use not to show that much presence in regular shopping centers and malls, are now massively investing into new formulas and creative physical representation. But banks have a long history of architectural expression in Cities and through all form of representation: buildings, brochures, check books, banknotes, and websites.

3. Banking and Innovative Architecture: a love-hate relationship

⁵⁵ Cover Story (2004). *BusinessWeek*, February 2.

⁵⁶ Ibid.

⁵⁷ The A-Class Box: a modular displaying system designed in 1996 by: Tobias Wulf + Partner, architects in Stuttgart.

⁵⁸ Jakle, A. and Sculle, K.A. (1994). *The Gas Station in America*. The Johns Hopkins University Press. Baltimore and London.

In the middle of Piazza Salimbeni, in Siena, Italy, the statue of economist Sallustro Banini watches over sober and beautiful limestone buildings erected in the sixteen and seventeen centuries. In fact, the entire plaza is framed by Il Monte dei Paschi di Siena bank's offices and art galleries, a financial institution founded in 1472 by the city-state of Siena to make successful loans while charging only modest interest⁵⁹. American economist John Kenneth Galbraith once wrote that "Banking belongs to the Italians", reflecting on the bustling of the great family banks of Florence, Genoa, Milan, Siena and Venice of the Renaissance period. If almost none of these banks remain, Il Monte dei Paschi di Siena (MPS Group), well known for its cautious and sensible management, has expanded into a major independent Italian financial player with a network of over 1,800 branches in 2004, approximately 4,5 million clients and over 28,000 employees⁶⁰. The President office on Salimbeni Plaza, where business is still conducted, has 15th-century fresco commemorating the creation of the bank, and most of its furniture dates from the 16th century. In its art galleries, as well as in prestigious meeting rooms, the bank displays numerous prized possessions, such as the Saint Anthony Abbot painted in 1423 by Sassetta, or the Adoration of the Magi, also by Sassetta, a companion piece to The Journey of the Magi, owned by the New York Metropolitan Museum. And MPS fragile records are kept in a climate-controlled archive. Daily commerce in Italian city-states would not have been possible without the banking skills of the local deposit bankers or money changers, what the Italian used to call: *banchi in mercato*. In Genoa, the city authorities located the activity in appropriately named Piazza Banchi; while in Venice bankers had booths along the Rialto⁶¹. In Siena, the money-market specialists were gathering to exchange sensitive informations in the Loggia della Mercanzia. The physical representation of these growing financial institutions became a sensitive issue. While avoiding to lavishly displaying wealth in order to preserve the princes' sensitivity, banks were designing buildings to convey solidity and trustworthiness.

Then, in the 19th and 20th century, discretion was no longer fashionable in the world of free market and triumphant capitalism. Banks were rather competing, and still do to a certain extent, for erecting the highest and more dramatic building ever. And very often, the medium constitutes the message. In North American city centers of New York or Chicago, the early skyscrapers of the 1920s and 1930s offers a panoply of heavy handed symbolism, however dominated by the great manufacturers of the time. Bank of America in Chicago with its magnificent lobby, a 1923 design by Jules Guerin, illustrates the "grand-architecture" applied to the New World financial institutions. Building activity in the U.S. naturally slew down just after the winter of 1929-30, due to the financial crisis, apart with great exceptions such the Rockefeller Center, almost the only big architectural project during the early thirties in New York⁶². And then, another dominant style emerged in corporate design. Escaping from Germany during the thirties, Mies van der Rohe introduced the new International Style, sober design with glass and visible iron made dark frames, which drastically influence architecture for the following decades. Later on, variants emerged, such as the 100 story John Hancock Center in Chicago, a prototype for a tall office building as a city within a city. In Europe also, similar approaches influenced the design of banking facilities. Goldman Sachs European headquarters in London, at Peterborough Court-Fleet Street, is a vocal example of power-style.

⁵⁹ Green, T. (1987). *The Prospect for Gold*. New York: Walker.

⁶⁰ Monte dei Paschi di Siena company web site: www.mps.it

⁶¹ Lane, F.C. and Mueller, R.C. (1985). *Money and Banking in Medieval and Renaissance Venice*. Baltimore: Johns Hopkins University Press.

⁶² Okrent, D. (2003). *Great Fortune : The Epic of the Rockefeller Center*. New York: Viking.

The “Muscular” building speaks of power, of deal-flow, of secret knowledge⁶³. By mid-nineties, opulence is, once again, considered obsolete, at least in Europe and North America. In fact, whatever their business purpose, the tallest skyscraper most recently erected are now located in Asia, such as the 2004 completed Taipei 101 in Taiwan, culminated at 509 meters, or the 1998 twin Petronas Towers in Kuala Lumpur, both 452 meters high. Fourth tallest edifice, the 1974 Sears Tower in Chicago stands in the U.S., then, the following fifth, sixth and seventh buildings in height have been recently erected in China and Hong Kong⁶⁴. Started in May 1998 and operational in July 2000, the Citigroup Center in Sydney probably stands as the most pre-eminent recent banking facility, even if not entirely devoted to financial activities, with its 50 floors and 243 meters of height.

Since banking business in the West believes it has entered a permanent change mode, modern architecture favours adaptability and utility⁶⁵. Adaptability and functionality also suit real estate management objectives since they give buildings higher resale potential. Naturally, the style, now undemanding and modest, paid a tribute to the new trends and projection of identity could no longer be strongly conveyed thanks to architecture. Most of the interior of the banking buildings between 1995 and 2000 rely on standardized organization and commonplace features for trading, settlement, and corporate finance. J.P. Morgan’s London office and Barclays headquarters, also in the City, present good examples of modest and functional design which despite the low key orientation preserve a sense of elegance and quality. Also, some developers are realizing that users of bank facilities have become more demanding and companies, especially in the Benelux and Northern Europe, have adopted innovative approaches in the design of office space. Frank Duffy and Alex Henney wrote in an influential book on the modern evolution of city⁶⁶: “The great need is for an alternative image of the office to that of a money-multiplying, inhuman, non-life-enhancing tower”. Years ahead of its time when it was finished in the 1980’s, ING bank headquarters in Amsterdam is noted by Duffy and Henney as an excellent example of user-friendly building. On top of providing an exceptional two-level Japanese-style garden for the employees to relax in, the corporate village of ten low towers whose walls slope in multiple directions offers restaurants, snack bars, post room, library, film theatre and conference rooms, all reachable through an indoor walkway. As opposed to a common North American practice in modern offices, no worker sits more than six metres from an opening window. Interesting initiatives also include the erection of the Bank of Luxembourg headquarters in 1995 on a design by Brescia and Spare from Arquitectonica, considered the most creative –even provocative– architectural firm in Florida since the late seventies. Unfortunately, due to endless internal discussions, the treatment of the facades looks rather commonplace while amazing space organization awake the interior⁶⁷. Also, in Geneva, Mario Botta has been hired by Banque Bruxelles-Lambert to build its medieval-castle type Swiss headquarters⁶⁸. Already known for its architectural audacity, the bank worked during the fifties with American architect Gordon Bunshaft, from the famous Skidmore-Owings-Merrill firm of Chicago, to build its central tower in Brussels. Among multiple cases in North America, the Federal Credit Union in Oklahoma, a relatively low key structure designed by Elliot & Foltz, display wooden frame

⁶³ Cooke, S. (1996). Towards a machine for working in. *Euromoney*, August

⁶⁴ Specialized Web site : www.emporis.com

⁶⁵ Cooke, S. Ibid.

⁶⁶ Duffy, F. and Henney, A. (1989). *The Changing City*. London: Bulstrode Press.

⁶⁷ Eldemann, F. (1995). Des architectes de Floride construisent la nouvelle Banque de Luxembourg. *Le Monde*. May 12.

⁶⁸ Champenois, M. (1996). La banque et l'architecte. *Le Monde*, April 29.

and stone walls, with glass encapsulated meeting rooms opening on interior gardens with luxuriant vegetation. But this time, the building in Geneva stays on the sober mode.

In contrast with the tendency towards less formalism and more user-friendly atmosphere, a few large financial institutions keep on racing for the most dramatic architectural statement. Founded in 1864 in Paris, Société Générale, the seventh largest company in France with managed assets of about US\$ 660 billion by 2004, probably belongs to this category. Already in 1871, the opulent new headquarters by Hittorf stands proudly on what soon became the Boulevard Haussman, named after the famous urban planner who entirely remodelled Paris under Napoléon the third. In 1987, internal studies unveil the necessity to relocate the bank's headquarters and to group together the many teams spread all over the Parisian metropolitan area⁶⁹. The following year, a first proposal for installation in La Défense is refused by the public authorities but finally obtains approval in 1991 after many alterations of the initial project. La Défense, the business complex west of Paris, already houses 14 of the top 20 French corporations when Société Générale begins erecting its new building there. Land is acquired in June 1992 and work began in August the same year. Completed by June 1995, the 167 meters high company's twin tower in the Quartier Valmy, offers 200,000 square meters of floor space, excluding basic structure. With an area per standard floor of 1,300 square meters, it accommodates 6,000 employees, 17,500 square meters of trading rooms, and 1,400 parking places. A US\$ 1,1 billion investment in 1995, the project is partially financed by the sale, at about US\$.3 billion, of an already existing tower in the same district, and by the release of 63,000 square meters of office space in Paris downtown, including the 8,000 square meters of the Boulevard Haussmann's historic headquarters⁷⁰. Residual cost were planned to be paid off on a thirty five years basis. On the other hand, the company has developed in parallel a campus-like service complex in Val-de-Fontenay suburbs as early as 1992.



FIG. 6

Tour Société Générale, Paris, La Défense, Quartier Valmy

Designed by architects Andrault-Parat and Ayoub, the building features three separate sections: the lower-level which includes general services, storage, and the parking lot, the

⁶⁹ *La Tribune Desfossés* (1995). La Société Générale se dote d'un nouveau siège high-tech. October 26.

⁷⁰ *Le Figaro* (1995). Un nouveau siège pour la Société Générale. October 26.

base of the building which houses utilities, IT and telecommunication platform and three floors of trading rooms, and the twin towers extending from the 10th to the 37th floor and decorated by Christian Germanaz⁷¹. The 45 meters up lobby is all marble and glass, constituted by a massive cubic stone Agora 16 meters high beneath a stone cylinder twenty meters in diameter stretching five floors into the sky. The building has five restaurants offering a variety of catering options, including the Club Société Générale at the top of the edifice, as well as two cafés, a travel agency, insurance office, photo shop, newsagent, and, of course a bank branch.

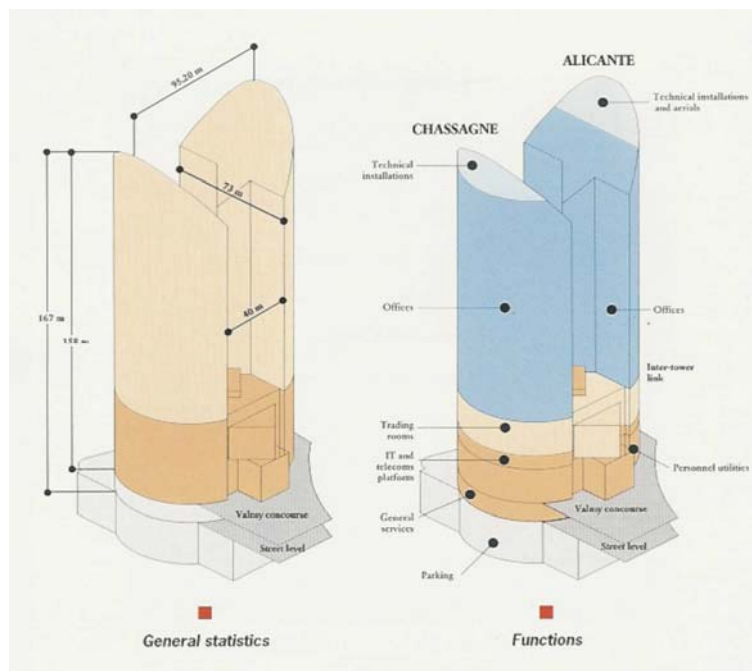


FIG. 7
Tour Société Générale, Paris, La Défense
General statistics and functions

A certain level of innovation takes place in the way technology is implemented. For instance, each employee is equipped with a sophisticated multi-media communication system, as well as a command allowing for individualized lighting, temperature, and fan. The trading rooms are equipped with sound reducers which significantly cool down the atmosphere of these usually over heated playgrounds⁷². The “free-cooling” air-conditioning system starts working when external temperature reaches 13 degrees centigrade for energy saving purpose and water from condensation is reused for hot water batteries⁷³. Finally, a computer aided maintenance control system analyzes operating cost on a regular basis, an important function since, according to Duffy and Henney, the 60 year cost of a corporate building is dominated by space plan, redone 7 to 10 times, and skin services, redone 2 to 3 times⁷⁴. Almost ten years after its completion, opinions differ regarding the adequacy of the choice for the huge and

⁷¹ Tour Société Générale (1996). A corporate brochure by IPS Communication Paris for Société Générale.

⁷² Demerlé-Gof, A (1995). Les Tours de « La Générale ». *Le Moniteur*, October 27.

⁷³ *Le Moniteur* (1995). Climatisation modulable pour le tour de la Société générale. April 4.

⁷⁴ Duffy F. and Henney A. (1989). Op.Cit.

dramatically formal facility for efficiently housing the multiple and very diverse banking activities of Société Générale.

In general, banks play a key role in reshaping urban landscape, opening branches at each crossroad in place of café or pub. In fact, much effort seems to have been allowed in the recent period on building numerous new branches and reshaping existing ones. Early nineties, marketing experts insist on the deep evolution of social behaviour in regard with the consuming of goods and services. For financial services, specialists even talk of a dramatic upheaval in retail banking. New banking customers more frequently use self-service devices and rely massively on credit card. They demand higher quality services and advise, and for many of these, personal contact with the bank sees its importance decreasing. As a consequence, new space concepts for bank branches have to be generated. For instance, Swiss Bank Corporation, before its merge with Credit Suisse, develops a standardized customer exchange area articulated around three zones: a self-service side close to the entrance, a central space devoted to advice and sophisticated services, and finally a still maintained traditional glass-counter side. For the user, the attended advantages of this design include an immediate viewing of the three zones, the possibility of choice between fast-track machine-based transactions or personalised treatment, as well as the extension of opening hours of the self-services area. At the Union de Banques Suisses regional head-branch in Lausanne, a more elaborated, yet based on similar principles, design is implemented during the 1994 summer period. Opening on the main local plaza, the first slide of the large and lightly lobby is packed with advanced automated teller machines and communicate to a second area housing the “Première Loge” area. An innovation in the Swiss banking landscape, “Première Loge” service offers, from 9 am to 4.30 pm, booking for theatre, opera, and music shows all over the country. Then, customers switch to the main business zone, starting with an information desk and waiting space furnished with Le Corbusier famous LC leather sofas. Traditional counters are replaced by three customers’ adviser spots. For investment and private counselling, a set of quiet lounge suites stand in the back of the building. Still in operation by 2004, this lay out has proved satisfying to both customers and bank employees. At SBS and UBS in Switzerland, initial self-service packages usually included cash machines, currency changers with offline feature, banknote and coins converters, and an emergency telephone, directly linked to the closest police station, fire department, hospital, and SBS 24hours switchboard. Then, the basic set of equipments has been considerably extended in the decade following the implementation of the new branch concepts in banking all over the country. Full automated branches, offering advances functions, became a commonplace feature in Swiss cities main streets and malls as early as 2000. Similar patterns have influenced the evolution of the “physical” landscape of banking in Europe and North America.

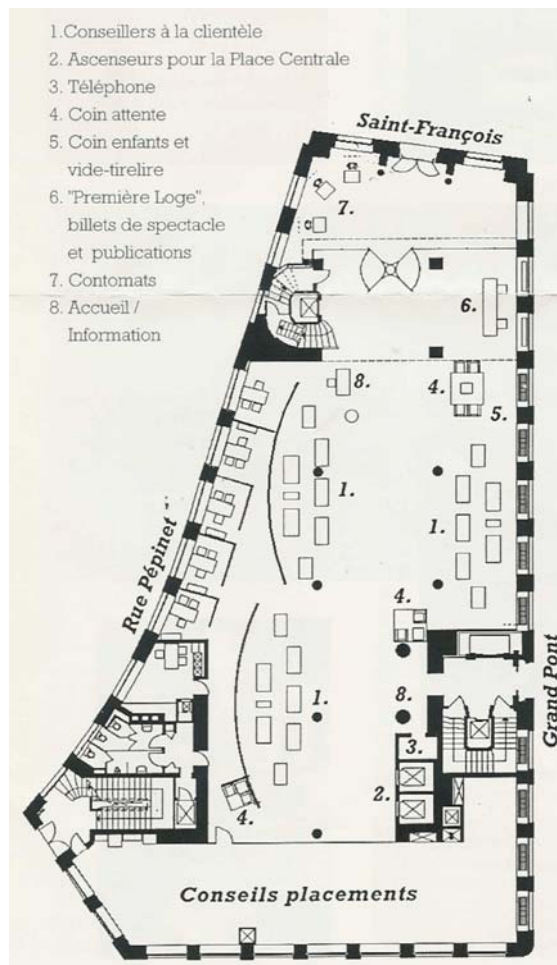


FIG. 8
UBS regional headquarters lobby, in Lausanne

4. Evaluating Spaces and Design Projects in Services: Process and Methods

Service companies regularly and significantly invest in their facilities and in their architectural representation. In almost any service sector, there would be a series of cases illustrating how ambitious enterprises have made innovative use of space design in view of consolidating competitive positions. However, not all creative architectural expression has been credited with success. As a matter of fact, architectural evolution frequently takes the conservative line depriving many service firms of the differentiating advantages resulting from sound space design. On the other hands, the lack of formalized methods to appraise the possible economical impact of architectural change for the investing company contributes to significantly limit the willingness of company for experimenting really creative design. Regarding the design of office space, Jesper Steen, for instance, mentions questions which stay with no elaborated answer: “How should office organizations know which physical-spatial concepts are useful to their operations? How ought a property owner who wants to improve an office building distinguish between stable changes and more ephemeral expressions of fashions? In which ways do needs differ between different types of office operations?”⁷⁵

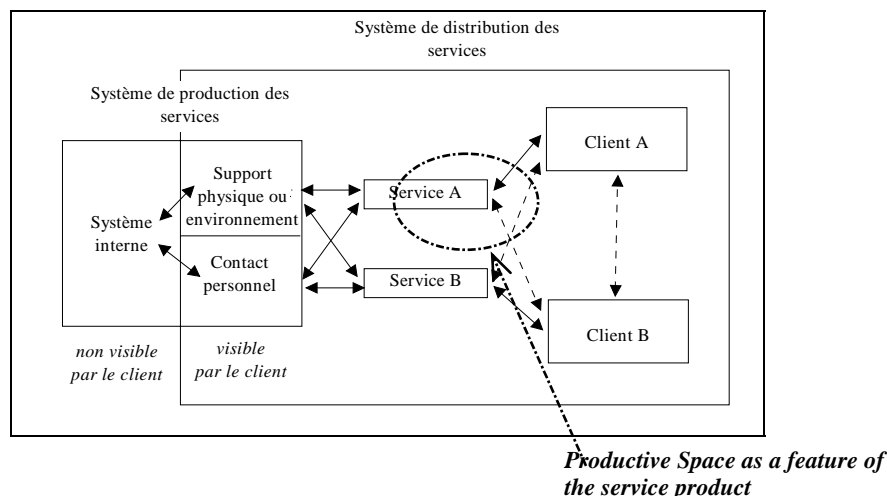
⁷⁵ Steen, J. (2001). The Office: Form and Space for Action. In Proceedings, 3rd International Space Syntax Symposium, Atlanta.

Early research in compartmental science has showed that individuals react to space with two type of opposite behaviors: approaching or rejection⁷⁶. On top, the nature of the physical surrounding influences the quality of the interactions between people. Space design also affects customer expectations and choice⁷⁷; and smells and sounds also play key roles⁷⁸. Equally important, physical surroundings have a significant influence on employee motivation and effectiveness⁷⁹. Specifically in services, customers obviously take into account physical surrounding when deciding for a given transaction, but they also consider it while constructing their perception of satisfaction and need fulfillment during and after the encounter⁸⁰. An international group of researchers proposes, in the early eighties, a conceptual representation of the Service Delivery System which already takes into account the physical support sustaining production operations in services⁸¹.

FIG. 9

Service Delivery System

Source: Langeard, Bateson, Lovelock, and Eiglier (1981)



Then, a typology of environmental components affecting service encounters is defined, including: 1) the surrounding factors that affect primarily the non-visual senses; 2) the design elements, including the tangible forms and structures, colors, furnishing, and space organization; 3) the social factors relating on the human component of the environment,

⁷⁶ Meharian, A., and Russel, J.A. (1974). An Approach to Environmental Psychology. Cambridge: Massachussets Institute of Technology Press.

⁷⁷ Churchill, G.A., and Surprenant, C. (1982). An Investigation into the Determinants of Customer Satisfaction. *Journal of Marketing Research*, N°19, November.

⁷⁸ Baker, J. Berry, L.L., and Parasurama, A. (1988). The Marketing Impact of Branch Facility Design. *Journal of Retail Banking*, Vol.10, N°2.

⁷⁹ Sundstrom, E. and Altman, I. (1989). Physical Environments and Work-Group Effectiveness. *Research in Organizational Behavior*, N°11.

⁸⁰ Zeithaml, V.A. and Bitner, M.J. (1996). *Services Marketing*. New Yotk: McGraw Hill.

⁸¹ Langeard, E., Bateson, J.E., Lovelock, C.H., and Eiglier, P. (1981). *Services Marketing: New Insights from Consumers and Managers*. Cambridge: Marketing Science Institute.

namely the employees and customers with their associated behavior⁸². In parallel, Mary Jo Bitner expose a first set of relevant observations concerning the effects of physical surroundings on the evaluation of service encounters⁸³. In 1992, she put together several hypotheses regarding the relationships between customer behaviour and space design in service transactions⁸⁴. However a few years later, Baker and Cameron defend that only through the integration of literature on architecture, psychology, physiology, operations management, sociology, and marketing, it might be possible to elaborate a model relevantly explaining the impact of service surrounding on costumer perception and behavior⁸⁵. These valuable essays have not yet cover the entire field and researches focusing on the measurement of performance regarding the design of corporate space still have to be accomplished despite exploratory works⁸⁶.

However, appropriate use of articulated methods certainly proves necessary for any service company willing to objectively make key design decisions. Our objective, at this point of the discussion, is not to propose a comprehensive tool box allowing for a full appraisal of the performance of service architecture. We simply would like to introduce a three level approach mobilizing available principles in view of contributing to a first evaluation of design projects or existing service facilities. This approach aims at contributing to bring answers regarding the three major following questions:

- How to adequately define design tasks in order to maximize the chance of success for any future service facility?
- How service buildings can be designed and used to convey the expected image to beneficiaries, employees, shareholders, and the social environment?
- How service facilities work? May the location, spatial layout, and space use be considered efficiently enough? Are the contact networks generated by the spatial organization in line with the company's objectives and useful for the people involved?

In order to efficiently define the design task, one may follow on the path suggested by Thomas Walton in *Architecture and the Corporation*⁸⁷. The author believes in improving the understanding of the relationship between architects and executives by postulating "laws" to account for their respective expectations. Four "maxims" summarize the conceptual basis for using design effectively as a business resource: 1) integrate multiple perspectives; 2) emphasize casting; 3) sift for relevant facts; 4) manage a pluralistic decision-making process.

⁸² Baker, J. (1986). The role of the Environment in Marketing Services: The Consumer Perspective. In: Czepeil, J.A., Congram, C.A. and Shanahan, J. Eds, *The Services Challenge: Integrating for Competitive Advantage*. Chicago: American Marketing Association.

⁸³ Bitner, M.J. (1990). Evaluating Service Encounters: The Effects of Physical Surroundings and Employee Responses. *Journal of Marketing*, Vol. 54, April.

⁸⁴ Bitner, M.J. (1992). Servicescapes: The Impact of Physical Surroundings on Customers and Employees. . *Journal of Marketing*, Vol. 56, April

⁸⁵ Baker, J., and Cameron, M. (1996). The Effects of the Service Environment on Affect and Consumer Perception of Waiting Time: An Integrative Review and Research Propositions. *Journal of the Academy of Marketing Science*, Vol. 24, N°4, Fall.

⁸⁶ Dubosson, M. and Mathe, H. (2004). Gestion des espaces de transaction de service et avantage competitive: formulation d'une demarche et d'un outil d'évaluation de la performance. In *Proceedings, 8th International Research Seminar in Service Management*. La Londe les Maures.

⁸⁷ Walton, T. (1988). Op. Cit.

(See Table: Maxims to maximize results in design). Then, the question of the “imageability” of the productive space should be carefully studied. Kevin Lynch, in *The Image of the City*, defines the concept of “Imageability” as the quality in a physical object which gives it a high probability of evoking a strong image in any given observer. It is that shape, color, or arrangement which facilitates the making of vividly identified, powerfully, structured, highly useful mental images of the environment⁸⁸. An environmental image may be analyzed into three components: Identity, Structure, and Meaning. Identity induces recognition as a separable entity; while structure refers to the spatial or pattern relation of the object to the observer and to other objects. Meaning could also be defined as a relation but not so easily influenced by physical manipulation.

Corporate identity programs, which are developed by big firms or communities such as cities or public services, emphasize the use of Imageability. As a brand management specialist, Wally Olins explains that Corporate Identity programs mark out turning points in a corporation’s life because of their high visibility and impact⁸⁹. Increasingly, corporate identity programs are concerned with expressing three separate but interrelated themes – coherence, symbolism and positioning – which go to the very core of a corporation. The organization wants its different parts to relate to each other in a clear and comprehensive way. Any organization usually expects that everyone who works for it can share the same driving spirit and then communicate this spirit; on top it also needs to differentiate itself and its services from those of its competitors⁹⁰. However, corporate executives and their identity enhancing consultants seem to only begin to really acknowledge the power associated with the mobilization of architectural resource in order to increase corporate “Imageability”.

TABLE 2

Maxims to Maximize Results (Adapted from Thomas Walton “Architecture and the Corporation “, 1988)

FOUR-STEP PROGRAM	CORPORATE TASKS
<p>A. MULTIPLE PERSPECTIVES</p> <ul style="list-style-type: none"> • The Managerial Perspective • The Employee Perspective • The Architectural Perspective 	<ul style="list-style-type: none"> - Define Objectives and Priorities - Establish Standards of Quality - Articulate Corporate Value - Seek Employee - Look for a Compatible Marriage with the
<p>B. CASTING</p> <ul style="list-style-type: none"> • Multitude of Actions and Roles • Assembling the Cast 	<ul style="list-style-type: none"> - Appoint the in-house players - Hire outside managers - Select the design team - Work with key public actors - Determine the Mix of In-House vs. Outside Services - Stress the CCC Syndrome: Commitment, Communication, and Competence
<p>C. SIFT FOR RELEVANT FACTS</p> <ul style="list-style-type: none"> • Design Research • Critical Topics 	<ul style="list-style-type: none"> - Turn facts into Options - Study Technology, Layout, and Image
<p>D. MANAGE PLURALISTIC DECISION-MAKING</p> <ul style="list-style-type: none"> • Elements in Design 	<ul style="list-style-type: none"> - Emphasize Goals, Not Positions - Develop Consensus - Integrate Decision-Making and Culture

⁸⁸ Lynch, K. (1960). *The Image of the City*. Cambridge: The MIT Press.

⁸⁹ Olins, W. (1989). *Corporate Identity: making business strategy visible through design*. London: Thames & Hudson.

⁹⁰ Olins, W. and Selame, E. (2001). *The corporate audit: a set of objective measurement tools for your Company's image and reputation*. Cambridge: Cambridge Strategy Publications.

However, a few product-design consulting firms have entered the field of service and commercial space design. An interesting illustration, IDEO, a Palo Alto (California) company, has designed hundreds of products, especially laptop, PDAs and other high-tech devices, and won more design awards over the nineties than any other firm⁹¹. Now, IDEO, the 350-employees company, is transferring its ability to create consumer products into designing consumer experiences in services, from shopping and banking to health care and wireless communication⁹². For instance, the largest health maintenance corporation in North America: Kaiser Permanente, hired IDEO in 2003 to help thinking the next-generation medical offices and hospitals buildings they would have to put in place to cope with their long-range growth plan. First of all, IDEO's innovative five-step program approach called for the constitution of a special project team joining Kaiser's medical personals and facilities managers with the design's firm architects, designers, social scientists, and other experts. Following phases of the project include an intense, idea-generating brainstorming session based on the data gathered by observing people. Rapid prototyping – of product but also of services and spaces - may then help visualizing possible solutions and speed up decision-making and innovation. Engaging clients actively in the process of narrowing the choices to a few possibilities proves determinant to the success of the project. Finally implementation brings the firm's capabilities in engineering, design, and social-science to bear when actually creating a product or service (See Table: IDEO's process of designing a better consumer experience).

At Kaiser health care organization, careful observation of patients have allowed for series of valuable insights, like revealing that patients and families feel quickly annoyed since checking-in is considered as a nightmare and waiting rooms lack comfort. Also, patients have difficulties with examination rooms because they often wait for up to 20 minutes half-naked, surrounded by threatening needles. "IDEO and Kaiser concluded that the patient experience can be awful even when people leave treated and cured"⁹³. After a couple of months since the starting of the analysis, the health care group realized its long-range growth plan didn't necessarily require erecting numerous expensive new facilities. Kaiser realized that seeking medical care is a social experience. So it had to implement simple recommendations to offer more comfortable and user-friendly surroundings and more efficient layouts, at relatively low capital expenditure. Apparently, many service companies still don't really know how to best connect with their consumers. It's why IDEO's services are in growing demand, with an impact on the corporate world probably far greater than its sales of only £62 million in 2003.

⁹¹ IDEO began in 1991 as a merger between David Kelley Design, responsible for the creation of Apple Computer Inc.'s first mouse in 1982, and ID Two, which designed the first laptop computer also in 1982. Office-furniture manufacturer Steelcase Inc. owns a majority stake in IDEO.

⁹² Nussbaum, B. (2004). The Power of Design. *BusinessWeek*, May 17.

⁹³ Nussbaum, B. Ibid.

TABLE 3

IDEO's process of designing a better consumer experience

(Adapted from: Carra, R (2004) This is the Ideo Way. Business Week, May 17)

FIVE-STEP PROGRAM TASKS AND TECHNIQUES	
1. OBSERVATION IDEO's experts team up with the clients to understand the consumer experience	<ul style="list-style-type: none"> - Shadowing <i>Observing people using products or experiencing services</i> - Behavioral Mapping <i>Photographing people within a given space over two or three days</i> - Consumer Journey <i>Keeping track of the interactions a consumer has with product, service or space</i> - Camera Journals <i>Asking consumers to keep visual diaries of their experience</i> - Extreme User Interviews <i>Evaluating experience of people who know-well or know-nothing about the service</i> - Storytelling <i>Prompting people to tell personal stories about their consumer experiences</i> - Unfocus Groups <i>Interviewing a diverse group of people to explore ideas about a given service</i>
2. BRAINSTORMING Intense, idea-generating session analysing data gathered by observing people	<ul style="list-style-type: none"> - Defer judgment <i>Don't dismiss any ideas</i> - Build on the Ideas of Others <i>No "buts", only "ands"</i> - Encourage wild ideas <i>Embrace the most out-of-the-box notions</i> - Go for Quantity <i>Aim for as many new ideas as possible</i> - Be visual <i>Use color markers to write on big Post-its that are put on a wall</i> - Stay focused on the topics <i>Always keep the discussion on target</i> - One conversation at a time <i>No interrupting, no dismissing, no disrespect, no rudeness</i>
3. RAPID PROTOTYPING Mocking up working models helps everyone visualize possible solutions and speeds up decision-making and innovation	<ul style="list-style-type: none"> - Mock up every thing <i>Models can be created not only of products but also of services and spaces</i> - Use videography <i>Make short movies to depict the consumer experience</i> - Go fast <i>Build mock-ups quickly and clearly</i> - No Fills <i>Make prototypes that demonstrate a design idea without sweating over the details</i> - Create Scenarios <i>Show different ways to use a service and how various designs can meet their individual needs</i> - Bodystorm <i>Delineate different types of consumers and act out their roles</i>
4. REFINING At this stage, IDEO narrows down the choices to a few possibilities	<ul style="list-style-type: none"> - Brainstorm <i>in rapid fashion to weed out ideas and focus on the remaining best options</i> - Focus prototyping <i>on a few key ideas to arrive at an optimal solution to a problem</i> - Engage the client <i>actively in the process of narrowing the choices</i> - Be disciplined <i>and ruthless in making selections</i> - Focus on the outcome <i>of the process – reaching the best possible solution</i> - Get agreement <i>from all stakeholders, especially including top-level executives</i>
5. IMPLEMENTATION Bring IDEO's capabilities in engineering, design, and social-science to bear when actually creating a product or service	<ul style="list-style-type: none"> - Tap all Resources <i>Involve IDEO's diverse workforce from 40 countries to carryout the plans</i> - Manage appropriate workforce <i>Appropriate team include advanced degrees holders in different kind of engineering and associate subjects as well as experts in fields as diverse as fashion, communications, linguistics, ergonomics, art therapy, ethnology, medicine, and zoology.</i>

In order to answer the interrogation concerning how service facilities work, numerous directions may be explored. We have decided to concentrate on one aspect of this rich problematic, among many other which cannot be developed here. The objective of the proposed analysis is to establish a description of underlying spatial structure in order to better understand two kinds of relations; those amongst the inhabitants of the systems and those between inhabitants and strangers. Introduced in the early eighties, the "space syntax" theory has developed into an extensive research program aiming at evaluating spatial configuration and functioning patterns created through the design of buildings and cities⁹⁴. Shape recognition techniques transform the plan into a mathematical network that can then be analyzed. On the basis of space syntax analysis, it has been proved possible in numerous cases

⁹⁴ Hillier, B. (1996). Space is the machine. Cambridge: Cambridge University Press.

to explain how inhabitants move. Nevertheless, no explicit representations of either motivations or individual cognition are actually mobilized⁹⁵. The method has considerably evolved and improved over time. Nowadays, it seems commonly used for explaining the success or failure of housing development or administrative buildings⁹⁶. Given its predictive power, an expanding range of applications in architectural and urban design have also been realized. The predictive quality of the space syntax analysis seems to rely on the observation that it implicitly embeds the way people understand their environment and decide on movement behaviors⁹⁷.

For instance, space syntax analysis revealed the underlying spatial orders of a failed commercial mall in Denver, Colorado. The approach allowed for the comparison between this recognized spatial structure with the one of another relatively similar, but successful, mall; its functional deficiencies were then identified⁹⁸. Studies on the spatial types of museums and research laboratories have also mobilized space syntax techniques⁹⁹. A recent investigation led to the conclusion that there is an underlying “genotypical” conflict in modern museums between the need to congregate people and the need to organize their movement¹⁰⁰. While achieving a study of service space syntax, a few generic tasks have to be performed in strict order, starting with a technical investigation and then being followed by a sociological analysis. In the following section, we expose a real-case illustration of the use of the space syntax methodology for the evaluation of a particular type of service facilities, namely the buildings of institutions for higher education in management.

SECTION THREE

Building the Future of Educational Services:

Role of Space Design and Management in Business Schools

The main objective of this part is to introduce the question of how facilities devoted to the teaching and research of management have to evolve in order to cope with the significant changes currently affecting business education. In the first part, we try to identify a set of relevant reasons why they appear to work or not to work. At that stage, we examine the images conveyed by management institutions to see if they match or not with the way the built forms function in practice. An investigation is carried out in several sites and allows to base results on comparative analysis. Some particular cases are observed in detail, including facilities of a leading institution in France and of another in Great Britain. The generative space syntax method, which allows for establishing relevant explanations regarding spatial order, is used in order to analyze settlement layouts. Finally, we address issues regarding the

⁹⁵ Penn, A. (2001) Space syntax and spatial cognition: or why the axial line? In Proceedings of the Third International Space Syntax Symposium, Atlanta: Georgia Institute of Technology.

⁹⁶ Penn, A. and Turner, P. (2000). A system and method for intelligent modelling of public spaces. UK Patent Office Application, GO28477.

⁹⁷ Saif-ul-Haq. (1999). Can space syntax predict cognition? In Proceedings of the Second International Space Syntax Symposium, Brazilia: Universidad de Brazil.

⁹⁸ Brown, M. (1999). Design and value: spatial form and the economic failure of a mall. *Journal of Real Estate Research*, 17 (1-2).

⁹⁹ Peponis, J. and Hedin, J. (1982). The layout of theories in the Natural History Museum. *9H*, N°3.

¹⁰⁰ Hsu Huang. (2001). The spatialization of knowledge and social relationships: a study on the spatial types of the modern museum. In Proceedings of the Third International Space Syntax Symposium, Atlanta: Georgia Institute of Technology.

influence of the new technologies on the delivery of higher education and their possible impacts on the future of business schools facilities. As concluding remarks, we evoke possible avenues for further research

1. Social implications of spatial concepts in business schools

During the period of the nineties, many questions arise regarding functions and performances of the business schools, as well as differences in the backgrounds of managers from one country to another¹⁰¹. Japan and Germany do not run colleges of management, apart from very few exceptions, whilst they have been for years amongst the strongest industrial centers. Why it was in the middle of the eighties, that 85 per cent of top managers in both the USA and Japan had university degrees, whilst the available comparative figure in Britain suggests 24 per cent¹⁰², 65 per cent in France and 62 per cent in Germany¹⁰³? Why does Britain graduate more than 5000 Masters of Business Administration in year 2000, compared to 1200 in 1986, When the USA produces 70,000? Is the traditional American style two year MBA-program the most efficient way to learn how to successfully manage a business? Why do the large companies in France, employing 2000 people or more spend roughly 3.5 per cent of their wage on average on training when the law only requires 1.2 per cent? To some extent the differences lie in semantics, different countries have different names for the same things. The differences, however, go much deeper. Each country has its own way, rooted in its own educational and historical tradition. On the other hand, there are detectable similarities. We believe the comparative analysis of space devoted to business education can contribute to better enlighten the problematic.

Many buildings and places have been designed to cope with the dramatic growth of demand in education through the twentieth century. In the United States, most of the well respected schools of management use traditional academic buildings built before the Second World War and simply added to existing campuses. In Europe, most of the Business Colleges have been designed within the last thirty years. There are some exceptions, the famous London Business School at Regent's Park looks definitely Victorian from the outside, but in fact the building was totally restructured twenty years ago. The Judge Institute of Management at Cambridge is located in a former hospital built in the middle of the nineteen century. The same is true for ESA, the French speaking school of business in Beyrouth; among others. Large amount of usually mixed public and private funds continue to be invested in facilities devoted to Business Education and Research. On June 2nd 1924, a public announcement of a US \$5 million gift marked the beginning for the specification of the Harvard Business School's facilities. One month earlier, George Baker and the President of Harvard University, Lawrence Lowell had established the George F. Baker Foundation just for this purpose¹⁰⁴.

In this analysis, we mainly focus on two given spaces: Cranfield School of Management near Bedford in Great Britain and ESSEC business school main facility in Cergy-Pontoise, France. Some suggestions, coming from other comparisons, will also be mentioned while considering Harvard Business School, a major institution in North America, and HEC Lausanne, the

¹⁰¹ Stoner, J., Program Chair (1999). The Management Education and Development Forum. In Proceedings, The Academy of Management Annual Conference, Chicago.

¹⁰² INSEE National Statistics Office (1995). Paris.

¹⁰³ Evers, H. and Landsheng, G. (1982). Qualification und Karriere. The Deutsch Institute

¹⁰⁴ Bunting, B. (1985). Harvard : An Architectural History. Cambridge: Harvard University Press.

school of economics and commercial sciences of the University of Lausanne. Given the initial influence of the British on the American educational system, as well as the French influence on Roman Swiss universities, observations of these situations can easily be related to the previous cases. These four institutions are chosen because of the high prestige they individually enjoy in their home country. Numbers of permanent faculty and staff, say permanent inhabitants, are also comparable in the cases of the French and the British places. However, figures related to the number of students might differ, given different structures of the programs offered.

The competition between colleges is usually stiff in view of attracting the best students, faculties and company funds. Consistent external communication and internal harmony are usually viewed as key factors to success in the Challenge. Facilities' design and organization significantly influence the performance of the corporate communication of these institutions.

2. Comparing the configuration of schools: adopted methodology

To answer how business schools' facilities work, my proposition is to start with the analysis of the built forms and place in parallel with the historical backgrounds and the organizational behaviors specific to the given institutions. The objective is to identify and disclose the principles which underlie the spatial forms of the studied colleges. In order to analyze settlement layouts, I am using the generative space syntax method¹⁰⁵. The method I am using to analyze business schools' facilities adopts a similar logic and certainly is inspired by the ones developed in previous work on space syntax¹⁰⁶. For each set of considered academic facilities, the following three steps of investigation are conducted:

- A plan defining the material configuration of the space is developed, including a graphic representation of the floor plans considering the interior areas from schools' entrances up to the entrances of classrooms, offices, and other units. However, material elements such as furniture and the like do not appear on regular floor plans, while altering the spatial arrangement and consequent traffic movements in subtle way. A proper due diligence with respect to physical conditions involves ensuring floor plans are accurately field-checked.
- A shape recognition process decomposing the spatial configurations into a set of elementary shapes that function as units of analysis is applied to the plans. Space syntax typically uses three elementary units of analysis – bounded spaces, convex spaces and axial lines – to decompose spatial configurations. Bounded spaces typically correspond to enclosable rooms with doors. Convex spaces relate to deformed circles representing the largest unobstructed space within a 3608 radius from a central point. A bounded L-shaped room will have two convex spaces. An axial line relates to a person walking. Aggregate measures include number of convex spaces and axial lines, ratios of convex spaces to axial lines, and others. A network linking these shapes – all adjacent convex spaces - using them as nodes of a network is constructed. All overlapping axial lines are also connected with each other creating a second network, with axial lines as nodes.
- A network measuring process, namely a syntactic analysis, is applied aiming at generating numeric tags for each node indicating how each node relates to the other nodes and the

¹⁰⁵ Hillier, B., Hanson, J., Peponis, J. Hudson, J., and Burdett, R. (1983). Space syntax: a different urban perspective. *Architect's Journal*, N°30, November.

¹⁰⁶ Hillier, B. (1999). The hidden geometry of deformed grids: or why space syntax works when it looks as it shouldn't. *Environment and Planning*, B 26 (2).

overall network. By simply enclosing and restricting space, every building creates differentials in the ways its spaces are connected; some are more interconnected than others. Those that are more interconnected are called integrating spaces; less interconnected spaces are segregating. The syntactic measure relied on here is integration, which measures the relationship between each individual node and all other nodes in the network. Integration is expressed as relative asymmetry (RA), which refers here to logical relations and constitutes an ordinal metrics varying from 0.0 to 1.0. The lower the number for a space, the more that space integrates. To get to this measure, the constructed graph is first justified by reorganizing it in such a way that each successively connected node is placed in an ordinal progression from the node for which a measure is sought. The fewer the nodes to pass through to reach the furthest nodes from the individual starting node, the more that node integrates all the others in the network. Finally, syntactic measures and related appropriate non-spatial parameters like pedestrian movement or use is interpreted.

3. Heritage of “Colbertisme”: A leading French institution

ESSEC, which stands for Ecole Supérieure des Sciences Economiques et Commerciales, belongs to the network of the leading French "Grandes Ecoles". Founded by the Catholic University of Paris in 1913, this institution acquired a reputation for its dynamism and entrepreneurial spirit. Despite limited resources due to the fact that as a private graduate school it had no public grants, the school experienced accelerated expansion and development after World War II. Its growth rate in the sixties made ESSEC the most rapidly expanding higher education institution in France. In the early seventies it distanced itself from its founder and physically moved twenty miles North West of Paris to the center of a new city called Cergy-Pontoise. Clearly suggested by the French Government, most of the schools of Engineering or Business traditionally located within Paris, followed the same trends and spread out around the capital during this period. The new school's facility was designed to appear as one of the key monuments in the new development. The objective was also to provide a stimulating environment to its initial body of eight hundred students, who quickly grew to sixteen hundred.

The initial two story building was composed of four major parts surrounding an internal patio. To some extent, one could detect something in the design coming from the European tradition of cloister-like structures for colleges. The main entrance opens to the south on the avenue. To the west we find most of the regular classrooms as well as two sets of four lecture rooms designed for eighty students each completed with an even larger four hundred seats one. Supposedly, the corridor joining the core building to the "Grand Amphi" can be opened to carrier. In reality the door has always been locked due to security concerns. Following the corridor of the linguists to the north, the building discloses a relatively secretive area: the chapel. Very unusual in such a modern building devoted to higher education in management; the Chapel discreetly recalls the origin of the institution. Not far from it is the library which can be reached only through one gate on the first floor. Internal stairs allow the user to go down to the library ground floor which is devoted to economic journals and magazines. The eastern part of the facility is used for sports on the ground floor and cafeteria on the first floor. A corridor serving nine rooms links the north part of the building with the main Hall. These nine rooms were progressively "colonized" by the students union, associations and "junior enterprises". From the Hall, a corridor leads, after crossing a couple of glass doors and climbing the stairs, to the seven story "administration and faculty tower". This part of the facility includes two enclosed stairways and two lifts; it directly opens to outside parking lots reserved for staff and faculty. The students parkway is located far behind the library and is accessible through the north door usually open until six p.m.

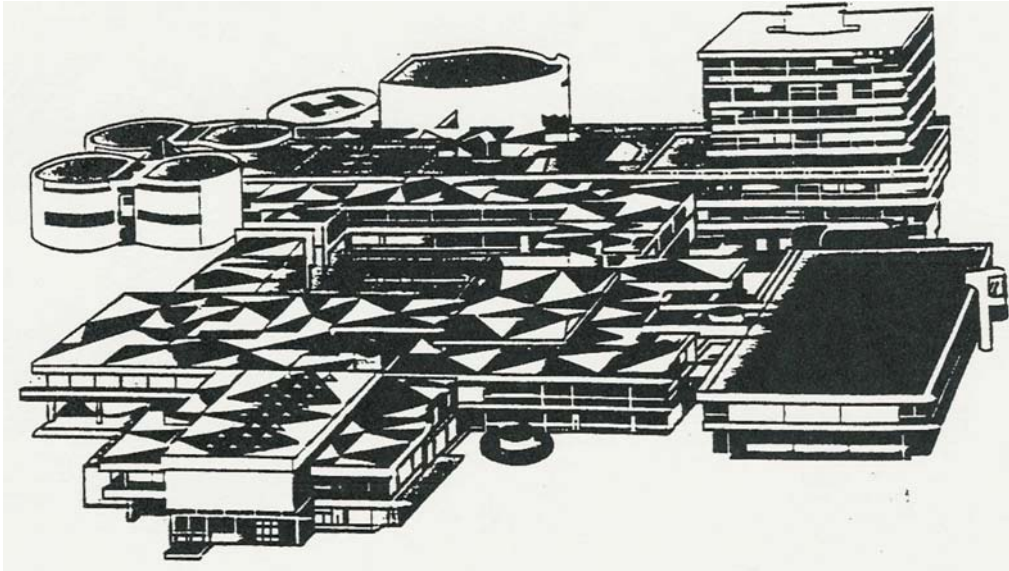


FIG. 10
Sketch of ESSEC main building in Cergy Pontoise, France,
As designed in the mid seventies by AEA, Ivan Seifert Architect

Some useful representations of syntactic properties may then be established. For instance the coefficients of integration and segregation of different lines and rooms is calculated. From the series of results obtained, it is possible to propose some primary interpretations of the syntactic properties of the studied space. ESSEC place seems to be simultaneously relatively classified and framed. It appears as a deep and ring space where each part is devoted to a specific use. There is not a lot of visibility from spaces except for the main corridors. The chain of rooms represents a highly controlled sequence where few choices of routes are possible. It would be too ambitious here to propose a set of laws regarding the generation of the studied architectural object itself, i.e.: laws governing the ways in which the rooms and open spaces were aggregated to form the school. Nevertheless, it certainly would be possible to identify certain basic principles related to this problematic. First, it seems that each activity corresponds to a special built form which is aggregated to the core thanks to the use of an appropriate corridor. So, none of the major areas - say lecture rooms, faculty tower, library, sport facilities, even the Chapel - communicates to the circular corridor by more than one path. All these spaces, as well as the regular twenty seat classrooms, must converge through corridors to the Hall which opens to the carrier. The central stairs located in the main lobby, links up with the first floor. More than twenty classrooms and office-type rooms surround the central patio, so that the garden is almost invisible and inaccessible from the circular corridor at least at ground floor level. It means that corridors must be used to open to a maximum of separate little spaces. There is a North-South open space crossing the building, being converted to most of the other circulation paths. This so-called "guiding" element introduces a correction, which from the interior continues towards the outside and vice versa. Such elements were introduced at the outset of the "modern" development to create "fluid" transitions after Christian Norberg-Schulz¹⁰⁷.

¹⁰⁷ Norberg-Schultz, C. (1988). Op.Cit.

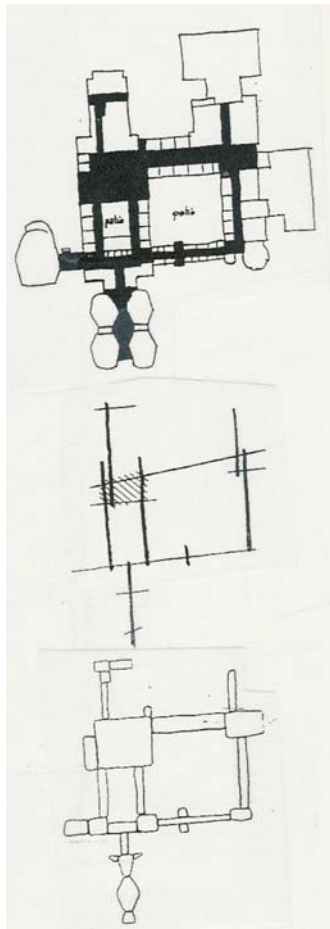


FIG. 11 Open space structure, Axial map of the open space, and convex map of ground floor of ESSEC main building

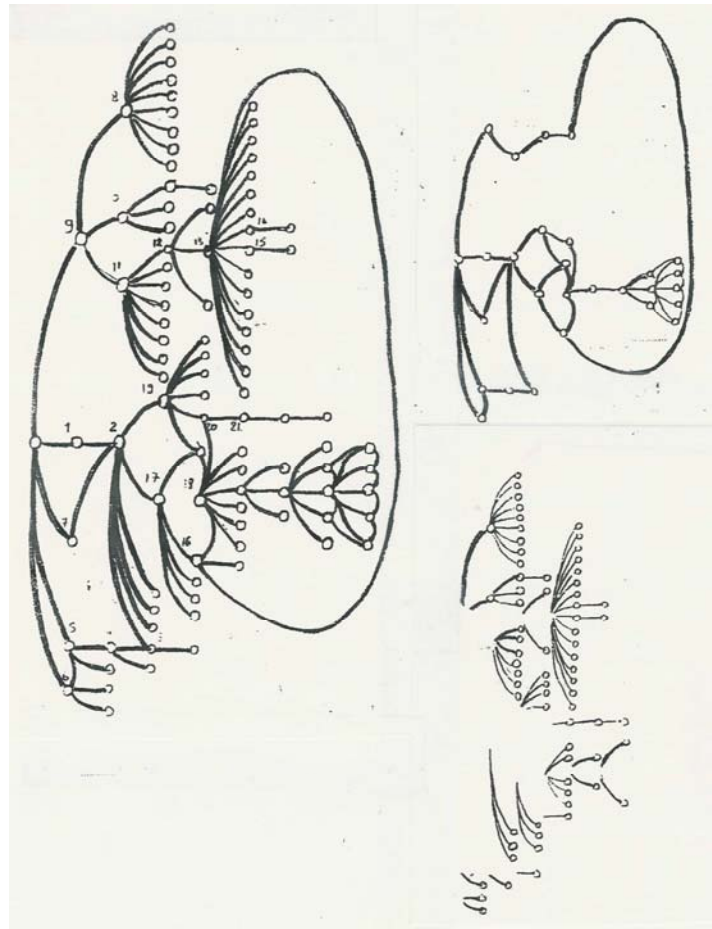


FIG. 12 Justified permeability map of ground floor, distributed (ringy) sub-system, and non-distributed (tree-like) sub-system of ESSEC main building

Our assumption is that this axial line probably is the most integrated space of the place. Later, we certainly could try to verify this hypothesis thanks to computerized calculation. For this paper, we call this specific space: line A, and the corridor joining the Hall to the Faculty tower: line B. At this stage, is it possible to identify laws regarding how the designers of the college in conjunction with the institution's management have given spatial form specific properties allowing for different types of social relation? To be able to answer to this question, we previously have to enter a short discussion about the French system of higher education. The regular public university system is open to all students who have passed the high school degree, called "Baccalaureat" in France. This system which covers the all national territory has long being centralized. Most of the decisions related to critical issues such as: new programs, appointments and rewards of faculty and so on, have been made, or at least approved, at the level of the Ministry of Education in Paris. It allowed a very narrow level of competence to the local Presidents of the multiple units, which have been basically managed like branches of a unique and huge public organization. Things are slowly evolving toward decentralization, as a new phenomenon in France. The system has evolved since the seventies but its basic properties are still remaining. Faculty provides lectures and exercises but hardly individual support, except in a field like medicine. At master and doctoral levels, some specific universities pay more attention to students, given the fact that for many years, only

the centralized state university system enjoyed the “privilege” of awarding doctoral degrees. In parallel to this system, another educational path is considered by roughly 10 per cent of the students. It is called “les Grandes Ecoles” and comprises a set of usually prestigious independent institutions. They can be government owned, such as the advanced colleges belonging to technical Ministries – Defense, Industry, Transportation, and so on - or privately managed, such as the business schools of the “Chambers of Commerce and Industry” for instance. They all require candidates to pass rigorous competitive exam to enter the programs they offer. Initiated at the beginning of the eighteenth century by Jean Batiste Colbert, Minister of King Louis the Fourteenth, the “Grandes Ecoles” system was created to provide the countries with the engineers and public administrators that the traditional universities, all catholic institutions at the time, were not interested neither able to develop. This supply of “managers” was always controlled, socially and quantitatively, and entailed selections which resulted in the establishment of a fiercely competitive elite, well compensated in terms of prestige, power and remuneration for their constant loyal service to public and, later on, private powers. ESSEC, as member of this network, adopted an architectural representation for its new facilities which clearly copes with the values carried out in the system during the seventies. It is self contained offering restaurant facilities, as well as martial arts rooms, chapel, language laboratory, etc, almost like a luxurious high school. For long, the message of elitism is also carried through this accumulation of service facilities which encourage students not to look to the outside world for entertainment. The library does not enjoy a prominent location. On the contrary, it is located in a deep corner. Its accessibility through one gate only is highly controlled, but it certainly offers one of the largest quantities of materials related to management in France. Physically, it does not have the importance of the sport facilities, in terms of location, access and size. It is certainly more segregated than the cafeteria or the computer center. Shaping the business elitism in France always put more pressure on balancing diverse activities and learning from experienced managers, either at the school or in the field, than on pure intellectual workload.

Location and design of academic offices always have been a problem for French “Grandes Ecoles”. Previous to the early seventies, most of these institutions did not maintain any permanent faculty. The most successful alumni were supposed to give lectures about their fields of expertise. Then, the time came for enthusiasm on American graduate education methods. So many former students were sent to great universities in the United States, and then came back to their alma mater in France with Ph.D. qualification and strong research skills. In the first place, the business colleges did not know where to locate this new type of permanent inhabitants. So the solution adopted by ESSEC was to erect a tower devoted to academic offices and to open it directly to the outside. As a result, considering the features of line B, crossing two sets of doors and climbing one flight of stairs, the access to the faculty from inside, say from the Hall, is considerably more difficult than from outside. Now, from a regular lecture room, the depth is ranked 13 to join a faculty's office, and even 15 for the director's headquarters. Between a faculty's office to the director's one, the depth is marked 8 given that none of the faculty is located at the same level as the director. For comparison, the depth between a lecture room and the Chapel is also ranked 8.

Does the spatial form affect the little community? One of the most interesting facts to take into account is the behavior of the students who naturally concentrated their life along line A. The student Union office as well as the headquarters of the dozen, now almost one hundred student junior companies and cultural or charity associations, were progressively located in the set of rooms available there. From this space, access to most of regular activities is extremely easy: sport (depth 4), student managed cafeteria (depth 4), carrier where student park way stands (depth 3), bookshop (depth 3), etc. Lecture rooms appear to be less accessible

(depth 9), so are the library and the academic tower. On the other hand, faculty members are almost completely isolated, constantly dealing with themselves in the devoted space. They elect a "dean for faculty affairs" for a period of three years. He seems to act as some sort of representative before the director of the school, who is nominated by the board of the Chamber of Commerce. The faculty dean's office belongs to the faculty area, which occupies the top three stories of the tower, whilst the director's office is in the other three stories administration part.

These spatial features certainly contribute to explain some of the characteristics of the situation of the school until the facilities were partially restructured. Most of the external corporate communication has been managed by an active large group of students committed to associative activities. They convey messages of enthusiasm and dynamism which are very well received by the business community. They very professionally put together exhibitions, musical festivals and so on, making the school desirable for the outside world. Direction and faculty always claimed for many years that student absenteeism is significant at most of the classes, and that the direct relationship between permanent faculty and students seems to be weak.

4. In search of collegiate ideals: a British experiment

Management education has been offered at the Cranfield Institute of Technology since 1953, although the School of Management formally begun in 1967. Cranfield is the only post graduate university in the United Kingdom. It is also the country's largest center of applied research and development in industrial technology. The School of Management has flourished to the point where today more than three hundred and fifty students attend the masters and Ph.D. programs. The school also offers a range of general management programs, specialist short courses and "tailor-made" in-company programs for more than three thousand five hundred practicing managers during a typical year. The School runs Britain's largest one year full-time MBA program, and plays host to many companies, ranging from multinationals to small-scale start-ups. Cranfield Campus is set in a countryside area of Bedfordshire, close to one of Britain's main motorways - the M1. The campus lies roughly half-way between London and Birmingham and is nine miles from Milton Keynes to the West and Bedford to the East.

The School of Management occupies a two story building opened in 1979. Even if more buildings have been added during the late nineties to this first one, we have focused the analysis on what has housed the School for almost twenty years. The task assigned to the architect was to design a space in order to create a stimulating atmosphere, non institutional in character and one which would facilitate discussion between groups and individuals. The building is dominated by a ground floor open area in which is served, twice a day, free tea and coffee at ritual hours. Around this forum are arranged six lecture rooms, almost thirty academic offices, television studios and areas for private study. During the day, all the doors communicating to outside are open, meaning that the building is accessible through basically four gates. The television studio is used for a variety of purposes, including project presentations and the exploration of interpersonal situations. The first floor also includes six lecture rooms, as well as a number of academic offices. The director of the School has his sober office located there, not far from the School's conference room. The library, on the same floor, occupies the space used by the forum at the ground floor level. It is stocked with a comprehensive selection of books, periodicals and newspapers relevant to management studies. A particular strength is its collection of current information which has been built up to

meet the research demands of the college. Opposite to the lecture-rooms area, is the purpose built computer studio connected to the Institute's Computer Center.

Once again, we apply the method of syntactic analysis of settlement layouts to study this place. The space seems to be classified because of the commitment of each part to a specific use. In fact, considering the flexible utilization of the forum, and the multiple locations of faculty offices, the school's building is certainly less classified than the ESSEC building one, and probably less framed as well. The distributed sub-system appears relatively dense. Several possibilities of moving inside the building exist, at least at the ground floor level. The first floor certainly looks a little more framed given the absence of the forum.

Could we detect the major principles governing the ways in which rooms and corridors were aggregated to form this specific college area? Mainly two types of basic units compose the building: lecture rooms and academic offices. They both can be found on the two floors. All the lecture rooms are shaped the same way, with two different sizes; they are convex spaces with seven partition walls. They usually have only one door and it never faces another door in the corridor. They are all concentrated in the western part of the building and they open to little convex spaces directly converging to the forum, or the lounge at the first floor level. Offices are spread all over the rest of the building, either opening on to the forum or on to the corridors which also converge to the forum or the lounge. Each office normally gets a unique door and only one window. It communicates directly to a "public" space, either street or square. Exceptions apply in approximately fifteen per cent of the cases. A few number of offices are larger, they enjoy two windows and open on to a transit-type sort of place. The "transit-room" opens on to other offices as well as on the corridor. On each floor, one bigger space occupies a central location and seems to have been sized to contain all the inhabitants at once. Five accesses to carrier maintain the depth from outside of almost every room relatively shallow. Within the building itself, depth between generic spaces, say lecture rooms, academic offices and central open spaces, is reduced to the minimum. Of course, some rooms are more segregated than the other and farer to the appearing center of gravity of the school. It cannot be related to the function of the room itself, but rather due to use the most of the relatively small lot devoted to the school.

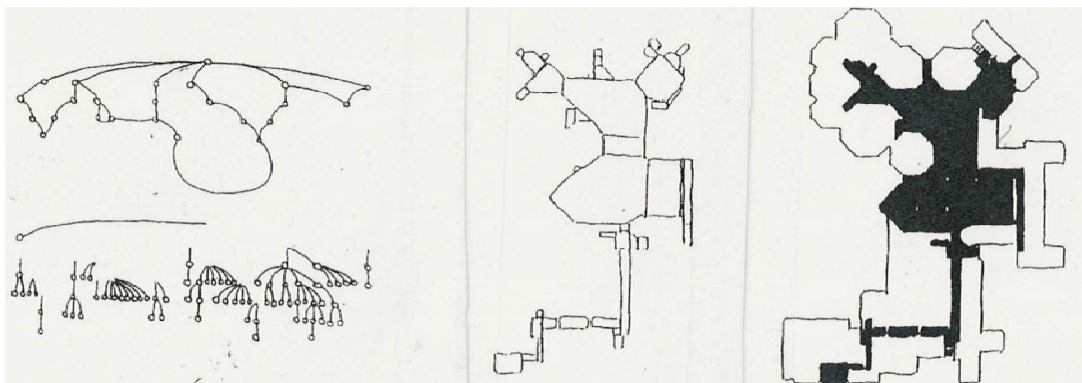


FIG. 13 Open space structure, convex map of ground floor, and distributed (ringy) sub-system vs non-distributed (tree-like) sub-system of Cranfield S.M. main building

Could we now identify how the given society has used and adapted the principles of the object to give spatial form to different types of social relation? The Forum and library certainly play central roles in the design as well as in the internal social relation as we did previously with the ESSEC Case. The Forum and Library certainly play central roles in the design as well as in the internal social relation. To some extent, we may argue that there is no conceptual difference, this time, between the function and effect of the forum and the ones

due to the enclosed quadrangle at traditional English college. From an architectural point of view, the objectives are nearly identical: housing a community of people with spaces for social life, framed instruction and tutorial. Eating and sleeping are not provided here, which reduces the function of the college but not its basic structural logic. Furthermore, the enclosed quadrangle functioned at Oxford and Cambridge, as defense against potential enemies. The ability to close off a college also gave academic authorities the advantage of greater control over the students¹⁰⁸. The fact is that, even today, Schools of Management usually like to be preserved from too much external influences, even within a given campus area. During the late sixties, in the USA, the Harvard Business School continues to work fully whilst the rest of the University loudly demonstrated for ending the Vietnam War. At the time, relationships between the two communities were really tense. The existence of two specific campuses, separated by the Charles River and enjoying different central courtyards or squares certainly helped to avoid tackles. For some other reasons, business schools, which appear wealthier than ordinary colleges, don't like to reduce their investment capacities in sharing too much of their funds or profit with other schools. That also led to develop enclosure, socially and physically. One could say that the school is not shaped at all like a quadrangle, but "misshapen" courtyards within the old college was common also during the medieval period, such as the fourteenth century Old Court of Corpus Christi College at Cambridge for instance. The location of the library also relates to the University tradition. Meanings of central location are multiple. First of all, it says that it is a place to converge to educate ourselves. It also says that the core concept of the schools education is knowledge, because knowledge is supposed to be printed in books forever. Finally, it also suggests that business can be studied as a science which stands. It invites students and faculty to regularly focus on reading and writing and shows to business visitors that there is a significant difference in missions between a School of Management and a regular company.

The direct access from the lecture room to the academic room certainly refers to the typically British tutorial tradition. The direct access from lecture rooms to academic rooms certainly refers to the tutorial tradition. It appears that in British universities, faculty really works close to the students, supporting them regularly during all the learning process. Maybe, this is why the significance of "Master" seems to be so strong in this educational system, while "teacher", say its appropriate translation, certainly dominates in France or Germany where the relationship with student is weaker. The existence of segregated and larger office indicates that the faculty is organized in different categories, possibly around the concept of "hierarchy". It verifies that there are some more powerful masters than average, and they precisely occupy these particular offices. Their offices are open to the group secretary's office. So a clear distinction is made between average lecturers, "serving" permanently the students and working with each other, and the "headmasters" of the specialized groups, who make themselves less accessible. This social distinction is provided through the spatial layouts of the school. The director of the school is there, even more accessible than senior faculties, having his office directly open to the corridor and very close to both stairs and first floor lounge, while prominent professors are located in very segregated extremities of the building.

Finally, how do the principles of the spatial form have an effect back on the academic community? We have already observed that, to some extent, offices are settled around the forum or the main avenues, a little like shops within a commercial mall. The director's office is one of the most exposed of these rooms, where a student can easily go when he is looking for advice and so on. Because of this layout, combined with the tutorial tradition as well as the

¹⁰⁸ Turner, P. (1984). *Campus : an American Planning Tradition*. Cambridge: MIT Press.

specific philosophy of the Cranfield University regarding commitment to company interests, the schools community really develops a kind of "client/supplier" within the building, as well as through its corporate communication efforts. Regular students and executives in training are constantly shopping around for support, contacts outside, etc when the faculty evaluates its performance through focus of circulation, looks for consulting with managers spending time in the Forum and works all together for joint interdisciplinary projects to achieve and so on.

It seems that the dynamics of the School activity well feels the opportunities provided by the space. In return the design of the space reinforces the basic values on which the system bases its dynamics. But because of its enclosed logic, its cultural influences as well as its size and style, the place can also present difficulties when the school deals with current new challenges. The extension of numbers of students generate need for different, more formal ways of managing internal relations given the limitation of the academic offices close to central points. The growth of the faculty obliges the school to adopt very segregated solutions like relocating complete teams in other campus faculties in which they start to build their own social regulation. The necessary international development is slowed down by the dominant British character of the group, character reinforced by the Spatial layout. Opportunities for joint research and in the relevant field of technology management are also slowed down by the enclosed shaping of the school within the campus itself, whilst the University offers a very broad range of specialized scientific and technical skills.

5. An insight to doubts and ambiguities

The two studied places were shaped apparently in a similar way, organizing activities around a central open space. But different solutions were adopted regarding the layout of the communication between groups of inhabitants. Today, they provide specific contributions to the social life of the two schools. On the other hand they result from an application of distinct cultural paradigms to the space design. In taking into account some other Business Schools building, it is interesting to focus on some of the noted points, for instance, the location of the library or the size of the offices.

All the British influenced systems of education usually emphasize the importance of libraries, as an academic symbol and as a central piece of architecture. Baker Library at Harvard Business School dominates the whole campus because of its location, its size - the largest and tallest building there - and style - it is the only part of the HBS place that enjoys a Georgian facade with pillars and is overhang by a bell tower¹⁰⁹. Same can be observed at Columbia University in New York City or at University of Virginia, Charlottesville and so on. It definitely does not verify in France or in most of the French influenced higher education systems. At the University of Lausanne, the school of business occupies a part of one of the multipurpose largest buildings of the campus. Again, the library is discreetly located on the left of the main entrance whilst a set of lifts occupy the central location in the lobby. Faculties offices take place in the higher floors of the building and are completely separated from the student life space, lecture rooms, cafeteria and so on. Nevertheless, because of the central location of the lifts, they appear to be less segregated than at Essec. In this Swiss university,

¹⁰⁹ Cruikshank, J. (1987). *A delicate experiment : The Harvard Business School 1908-1945*. Boston: Harvard Business School Press.

like at Essec in France, offices are usually of the same size, the British system of higher education is certainly one of the most hierarchically structured among those observed here. The American one almost always award the generic title of "professor" to the faculty members, distinguishing three ranks, and the German, Belgium and Swiss systems usually work with consistent bodies of "Professeurs Ordinaires", standing for permanent faculty members qualified to supervise doctorates, surrounded and supported by hoards of permanent assistants, who are not lecturing and by affiliate lecturers who are not necessarily permanent. The ways buildings are used and modified over time also influence on whether spaces work or not.

More generally, analysis of spaces devoted to Business Schools leads to more than one interrogation regarding identity of these colleges and missions. At the beginning of this paper, we considered a set of common postulates usually shared by Schools of Management. They refer to: commitment and responsibilities; origin and background of inhabitants of the systems; strong competition between institutions; consistency of external communication as well as internal harmony. Finally, we acknowledged that places devoted to management education, are supposed to be designed to satisfy the particular and explicit needs of the schools.

In fact, each of these assertions is associated with a set of paradoxal and ambiguous questions: How to define the core mission of the schools? Are the students there to learn how to understand the business world or how to manage it efficiently? Are they looking for concepts or recipes, transmission of past experience or vision of future trends, learning from academics or testing by themselves? Are the students supposed to enter the program without previous experience, so they can be shaped with "good" principles before being "deformed" by the working lie - or with it - so they can take advantage of learned concepts which help they to better understand past situations?

Traditionally, research is perceived as a focal point of the activities of an academic institution. Are the Business Colleges supposed to follow the same path when several of the most prestigious ones don't even run a doctoral program: Tuck School of Dartmouth College in the US and International Institute for Management Development at Lausanne in Europe, as well as many of the French leading schools of management, for example? In fact, there is a wide difference of opinion on the role of research in Schools of Management. This varies from those who equate research with the preparation of teaching material and see little need for anything else; to those who identify themselves as mainly researcher within a wide academic community. As the Director of Research at Cranfield suggests: the question is not merely one of the role of research in a given School, it is also about how a School sees itself ¹¹⁰. On the other hand, it's unclear if faculty members should enjoy previous managerial experience or not. Practice experience is usually not required by recruiting committees and often viewed as potential brake for research development, whilst executives in companies are looking for lecturers with more practical abilities than research skills. Situation is even more confused regarding qualifications of schools' leaders. Do these groups like to see themselves as partners of the business world or as impartial observers? Do the individuals work primarily to secure their position within the entire academic community or to consolidate their credibility before companies top management?

¹¹⁰ Johnson, G. (1990). Research in the School of Management : report and recommendations. Cranfield, CIT report, December.

The question of the belonging as well as the internal organizational structures of business colleges also stands with no general responses. So is the question of their buildings integration in direct urban environment: Harvard Business School runs its own campus with more than 25 independent buildings, but also physically and socially belongs the all university who stands proudly on the other side of the river. Cranfield School of Management occupies its own building, but is nevertheless part Cranfield University, and shares the same campus. London Business School has at its disposal a Royal Charter which recognizes it as a university in itself, like University College, for instance. At the same time the School belongs to the University of London and degrees are awarded through this label. But the LBS site is completely separated from any other academic building and the internal code of organizational procedures and regulations are specific. Essec enjoys its own "micro campus" and is organized as a university in itself with no official relationship with any larger academic institution since the tie with the Catholic University of Paris has been almost cut down long time ago. That normally should lead to local initiative and higher degree of motivation, but because of multiple reasons, certainly including the settlement layouts, it might rather induce identity crisis. HEC Lausanne shares a large building with the Faculty of Law and part of the Faculty of Social Sciences of the University of Lausanne. There is no possible doubt about the belonging of the school of business, neither in the application of a common set of organizational principles and regulation rules to the three groups renting the same place. It is too early to positively say that the spatial syntax of the given buildings reflects the different organizational structures of these Schools of Management. But it seems that the architectural decisions made at the time of the design show that, on the one hand, the terms of reference were probably more general than specific, and, on the other hand a large set of social paradigms and cultural heritage were taken in account by the architects, consciously or not.

Concluding Remarks

As concluding remarks, we would like to argue that spaces convey different social paradigms and generate different praxis related to national and cultural origins of the schools in the studied cases. Respective competitive positions as well as specific features come from, or at least are influenced and reinforced by the design and the settlement layouts of the places. It concerns advantages as well as disadvantages. Different structures of spaces supposedly committed to a similar mission may generate distinct kinds of relations and different means of interfacing. It verifies for relations among the inhabitants of the Business School systems as well as for those between inhabitants and "strangers". Christian Norberg-Schulz asserts that human life is largely conditioned by the quality of its "existential space", which itself affects the image of the environmental structure. Major social entities and fundamental elements of the environment, management colleges belong to such a structure.

Finally, importance of corporate design might paradoxically be enhanced by the very fact that the necessity of related to building to deliver education is now questioned by the development of new technologies in many service sectors¹¹¹. Education has traditionally been provided in classroom. Schools and universities mobilize significant facilities. While education seems to become a dramatically growing for-profit service activity, e-learning is exploding, fueling the development of organizations offering distance learning. For instance, with 175,000 salespeople and service agents at more than 7,500 dealerships, General Motors Corp. Has

¹¹¹ Mathe, H., and Dagi, T.F. (1996). Managing technology for the globalization of service operations. *International Journal of Technology Management*, Vol. 12, N°5/6.

spent a fortune bringing employees to hotel rooms and classrooms for training. Using interactive distance learning technology now being installed at every dealer, IDL will let employees view a live course beamed in by satellite and ask questions to the instructor, without leaving their dealerships¹¹². Even the US Army is jumping on the bandwagon now offering more than 1,000 different courses in information technology over the internet by SmartForce. E-learning isn't limited to tech training. Shoney's chain of restaurants has begun training waiters, cooks, and other employees using a novel satellite-delivered computer program to teaches recruits such basics as how to clock in for work or to take order¹¹³. However, it is not anticipated that classroom-based courses are going away; but institutions and training firms that relate on mediocre facilities while still focusing on traditional classroom-type services will see their market shrinking. More significant customer exposure to education facilities does take place, more crucial it is.

¹¹² Symonds, W. (2000). Education. *BusinessWeek*, January 10.

¹¹³ Enhorn, B., Yang, C. (2000). Portal Combat. *BusinessWeek*, January 17.

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